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PERSONAL

Mr. William F. Halstead has resigned his position as Second Vice-President and General Manager of the Delaware, Lackawanna & Western R. R.

Mr. Newcomb Carleton, M. Am. Soc. M. E., has been appointed Director of Works for the Pan-American Exposition to be held in Buffalo, N. Y.

Mr. Gratz Brown Strickler, Assoc. M. Am. Soc. C. E., of Rehoboth, Del., was married on June 7 to Miss Martha Barkalow Van Dyke, of Kingston, N. J.

Mr. S. N. D. North, of Boston, has been appointed Chief Statistician in charge of the Division of Manufacturing and Mechanical Industries for the Census of 1900.

Mr. George C. Woollard has been appointed Engineer of Maintenance of Way of the Buffalo, St. Marys & Southwestern R. R., with headquarters at St. Marys, Pa.

Mr. Richard Stevens, for the past ten years Consulting Engineer of the Carnegie Steel Co., at the Edgar Thomson Steel Works, has resigned his position, and will take an extended trip in Europe.

Mr. A. F. Nagle, M. Am. Soc. C. E., of Chicago, has been appointed Mechanical Engineer in charge of the construction of the new electrical power plant of the Manhattan Elevated R. R., New York city.

Mr. William D. Cantillon, Assistant Superintendent of the Milwaukee division of the Chicago & Northwestern Ry., has been appointed Superintendent of the Winona & St. Peter Ry., with headquarters at Winona, Minn.

Mr. James H. Fuertes, M. Am. Soc. C. E., of New York, has been appointed as Consulting Engineer, and Mr. Thomas R. Crowell, of Lebanon, as Designing Engineer for the proposed sewerage system for Lebanon, Pa.

Mr. A. W. Ebling, for many years connected with the Otto Gas Engine Works, has resigned his position as Secretary of that company. He proposes to take a vacation this summer before assuming fresh business duties.

Mr. Houston Barnard has been appointed Assistant Superintendent of Public Works for the Western Division of the Canals of New York State, to succeed Mr. Albert H. Porter, resigned. Mr. Barnard has been an Inspector in the Department for the last three years.

Mr. Charles F. Thompson, Secretary, Treasurer and Director of the Lane & Bodley Co., Cincinnati, O., has tendered his resignation, to take effect July 1. It is not yet known who will be his successor, nor has Mr. Thompson decided as to what he will do in the future.

Mr. Frank C. Faust has been appointed Engineer and Superintendent of Construction for C. E. Loss & Co., of Chicago, who have the contract for constructing a 45-mile extension of the Illinois Central R. R. from Fort Dodge, Ia., to Omaha, Neb. His headquarters will be at Rockwell City, Ia.

Capt. William G. Randle, Commander of the American Line steamship "St. Louis," and Commodore of the company's fleet, has resigned to become the Vice-President and General Manager of the New York Shipbuilding Co., which has recently established a plant on the Delaware River, near Camden, N. J.

Sir William C. Van Horne has resigned as President of the Canadian Pacific Ry., and has been elected Chairman of the Board of Directors. He will be succeeded by Mr. T. G. Shaughnessy, Vice-President. Mr. D. McNicholl, General Manager of Passenger Traffic, has been appointed Assistant General Manager.

Mr. Desmond FitzGerald, President of the American Society of Civil Engineers, and Department Engineer of the Metropolitan Water Board of Boston, has been appointed Chief Engineer of the Illinois State Commission appointed to examine the Chicago Drainage Canal and to report upon its works and its capacity.

Messrs. George E. Evans, M. Am. Soc. C. E., of Boston; Benezette Williams, C. E., of Chicago, and A. M. Pattiz, C. E., of Milwaukee, have been appointed on a commission to appraise the water-works of Ludington, Mich., and to fix the price the city must pay to the Ludington Water Supply Co., provided the citizens vote to purchase the plant.

Mr. Samuel Fortier has resigned his position as Superintendent and Chief Engineer of the Bear River Canal System of Northern Utah to accept that of Irrigation Engineer of the Montana Experiment Station at Bozeman, Mont. Prof. Fortier's time will be devoted almost wholly to the investigation of irrigation problems in connection with the State of Montana, the U. S. Department of Agriculture and the U. S. Geological Survey.

President McKinley has appointed the following commission to determine the most feasible and practical route for a canal across the Isthmus of Panama, in accordance with a provision of the last River and Harbor bill: Rear Admiral John G. Walker, U. S. Navy, retired; ex-Senator Samuel Pasco, of Florida; Mr. Alfred Noble, M. Am. Soc. C. E., of Chicago; Mr. George S. Morison, Past-President Am. Soc. C. E., of New York; Col. Peter C. Hains, M. Am. Soc. C. E., Corps of Engineers, U. S. A.; Prof. William H. Burr, M. Am. Soc. C. E., Head of the Civil Engineering Department, Columbia University; Lieut.-Col. Oswald H. Ernst, M. Am. Soc. C. E., Corps. of Engineers, U. S. A.; Prof. Lewis M. Haupt, M. Am. Soc. C. E., Philadelphia, Pa., and Prof. Emory R. Johnson, of the Wharton School of Economics and Finance in the University of Pennsylvania.

Mr. Andrew J. Cassatt, of Philadelphia, has been elected President of the Pennsylvania R. R., to succeed the late Mr. Frank Thompson, whose death was recorded in our last issue. Mr. Cassatt graduated from the Rensselaer Polytechnic Institute at Troy, N. Y., in 1859 ,at the age of 20 years. He entered the service of the Pennsylvania R. R. as a rodman on the Philadelphia Division, and two years later was made Assistant Engineer. In 1864 he became Resident Engineer of the Philadelphia & Erie R. R., when that line passed under the control of the Pennsylvania R. R., and in 1866 he was made Superintendent of Motive Power and Machinery of the same division. In 1870 he was appointed General Superintendent of the Pennsylvania system, and from 1874 to 1880 was Third Vice-President, when he succeeded Mr. George B. Roberts as First Vice-President. In 1882 he retired to private life, but has since been a Director and Chairman of the Road Committee of this company. He is also President of the New York, Philadelphia & Norfolk R. R. Co.

OBITUARY.

Mr. George W. Halstead, of the firm of Halstead Bros., structural iron manufacturers of Pittsburg, Pa., died of pneumonia on June 4, aged 30 years.

Mr. William W. Bailey, at one time President of the Wilton Railroad and Treasurer of the Nashua & Lowell R. R., died at Nashua, N. H., on June 10, aged 70.

Mr. William O. Fox, of Portland, Me., died on June 4, aged 73 years. For many years he was engaged in civil engineering and assisted in the survey for the first railway to enter Chicago.

Mr. C. G. Dixon, General Freight and Passenger Agent of the Spokane Falls & Northern R. R., and a well-known railway man in the West, died suddenly at Spokane, Wash., on June 10.

Mr. James K. Ford, a railway engineer, died at Nutley, N. J., on June 5, aged 82 years. He assisted in the construction of the Rome, Watertown & Ogdensburg R. R., before his retirement 25 years ago.

Mr. Sidney E. Locke died in Omaha, Neb., on June 7, aged 72 years. He held the first contract with the city of Omaha for the construction and maintenance of a water-works system. He was also the inventor of an improved process of manufacturing white lead, which is still in use.

Lieutenant Commander Wainwright Kellogg, U. S. Navy, died of heart disease on board the Hamburg-American Line steamship "Auguste Victoria" on June 3. He graduated from the Naval Academy at Annapolis in 1869. At the beginning of the late war with Spain, he was in the Bureau of Equipment of the Navy, when he was placed in command of the gunboat "Maple," and served throughout the war.

Mr. Gridley James Fox Bryant, an architect, died in Boston on June 8, aged 83. Mr. Bryant designed and also superintended the erection of many buildings in Boston, among them being the Boston City Hall, the Post Office Building, the Bryant State House extension, the Charles Street Jail and the State Prison. He has also had extensive operations outside of Boston, one of them being the Lexington Memorial Hall at Lexington, Mass. Mr. Bryant's father built the first railway in America, in 1831, that from the Quincy quarry to the Neponset river, a distance of four miles. It was used to transport granite for the Bunker Hill Monument.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

AMERICAN RAILWAY MASTER CAR BUILDERS' ASSOCIATION and the AMERICAN RAILWAY MASTER MECHANICS' ASSOCIATION.
June 14-23. Annual meeting, Old Point Comfort, Va. Secy., John W. Cloud, 774 Rookery, Chicago, Ill.

ROCHESTER ENGINEERING SOCIETY.
June 16. Secy., John F. Skinner, Reynolds Library Bldg., Rochester, N. Y.

THE DETROIT ENGINEERING SOCIETY.
June 16. Secy., Henry Goldmark, Wayne Co. Savings Bank Bldg., Detroit, Mich.

ENGINEERS' CLUB OF COLUMBUS.
June 17. Secy., H. M. Gates, 12½ North High St., Columbus, O.

ENGINEERS' CLUB OF MINNEAPOLIS.
June 19. Secy., H. E. Smith, 1620 S. E. 14th St., Minneapolis, Minn.

TECHNICAL CLUB OF OMAHA.
June 19. Secy., J. Harry Lawrie, Omaha, Neb.

ENGINEERS' AND ARCHITECTS' CLUB OF LOUISVILLE.
June 19. Secy., Marshall Morris, 16 Norton Bldg., Louisville, Ky.

ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA
June 20. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburg, Pa.

WESTERN SOCIETY OF ENGINEERS.
June 21. Secy., N. L. Litten, Monadnock Block, Chicago, Ill.

WESTERN FOUNDRYMEN'S ASSOCIATION.
June 21. Secy., B. M. Gardner, 1522 Monadnock Block, Chicago, Ill.

BOSTON SOCIETY OF CIVIL ENGINEERS.
June 21. Secy., S. E. Tinkham, City Hall, Boston, Mass.

ENGINEERS' CLUB OF ST. LOUIS.
June 23. Secy., E. R. Fish, 2401 N. Spring Ave., St. Louis, Mo.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.
June 26-28. Annual meeting at Boston, Mass. Secy., Ralph W. Pope, 26 Cortlandt, St., New York city.

AMERICAN SOCIETY OF CIVIL ENGINEERS.
June 27-30. Annual meeting at Capt May, N. J. Secy., Chas. W. Hunt, New York city.

CANADIAN ELECTRICAL ASSOCIATION.
June 28-30. Annual meeting, Hamilton, Ont. Secy., C. H. Mortimer, Confederation Life Bldg., Toronto, Canada.

MONTANA SOCIETY OF ENGINEERS.
July 8. Butte, Mont. Secy., A. S. Hovey, Nat'l Bank Bldg., Helena, Mont.

THE LOUISIANA ENGINEERING SOCIETY.
July 10. Secy., J. F. Coleman, 712 Union St., New Orleans, La.

WISCONSIN STATE CHEMICAL ASSOCIATION.
July 13. Secy. I. Ladoff, 154 Knapp St., Milwaukee, Wis.

NEW YORK RAILROAD CLUB.
July 20. Secy., W. W. Wheatley, 168 Montague St., Brooklyn, N. Y.

BROOKLYN ENGINEERS' CLUB.—The second annual dinner tendered by this club to its women friends was held on June 8 at the Clarendon Inn, Brooklyn, N. Y.

ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.—Meetings of this association were held at Los Angeles, Cal., on the evenings of June 2d and 5th. The first event consisted of a trolley ride and the inspection of the various electric railway and power transmission substations in the city.

The second evening, that of June 5, was devoted to a dinner, following which several prominent engineers delivered addresses on appropriate engineering subjects.

CANADIAN ELECTRICAL ASSOCIATION.—The annual meeting of this association will be held at New Royal Hotel, Hamilton, Ont., on June 28-30. The program includes the following papers: "Meters," A. A. Dion, Ottawa; "Cost of Power," C. B. Hunt, London; "Inspection," W. J. Plewes, Montreal; "The Enclosed Arc Lamp and Its Use," W. A. Turbayne, Hamilton; "The Incandescent Lamp for Central Stations," E. E. Cary, St. Catharines; "Central-Station Accounting from a Business Point of View," P. H. Hart, Montreal; "Transformer Economy," F. E. Leonard, Jr., Montreal. Mr. H. R. Leyden will also discuss the subject of "High Tension Power Distribution."

WESTERN SOCIETY OF ENGINEERS.—At the meeting on June 7, a short paper on "City Subways" was read by Mr. W. T. Casgrain, illustrated by views of the combined sewers and subways at Paris, the complete system of which will aggregate about 800 miles. Gas pipes and high pressure electric light conduits are excluded on account of the dangers due to leakage and short circuiting. London has a system of subways which was commenced in 1862, but this is entirely independent of the sewers.

The author thought that the subways should be owned by the city, and that their use should be made compulsory. As an instance of the necessity for such subways in Chicago, he referred to Dearborn Ave. Two weeks after a new asphalt pavement on concrete foundation was laid, the street was torn up for trenching, and has never been restored to its proper condition. He showed plans of proposed subways under the streets and alleys of Chicago. The street plan includes the use of vaults under the sidewalks, or an excavation under the street, the street surface being supported by steel columns and beams. The section of the alley subway would resemble an incandescent lamp bulb, having sewer at the base or neck, with gas and water mains in either side of the crown, while the oval chamber would have electric conduits and smaller pipes carried along its sides. Mr. G. A. M. Liljencrantz referred to the use of sidewalk vaults by abutting owners, and did not think the fact of such use was any reason why it could not be discontinued.

NEW PUBLICATIONS.

LITERARY MAGAZINES.—In the June "Forum," Mr. J. W. Midgley discusses the problems which are presented to railway managers by the Supreme Court decision to the effect that the Sherman anti-trust law prohibits all rate agreements between railway companies, and presents the argument in favor of legalizing pooling agreements, as they are commonly called. In the same magazine Mr. Robert T. Hill writes on the value of Porto Rico, and concludes that while we may benefit the Porto Ricans by giving them good government, we are not likely to find any notable opportunities for the profitable investment of capital in the island. In the "Pall Mall Magazine" for June, Mr. William Waldorf Astor gives a brief account of the life of John Jacob Astor, the founder of the Astor family and fortunes in the United States. There is also an excellent article on Baku and its famous oil springs.

"Progress in Air Ships" is the leading article in the June "Cosmopolitan." The writer, Mr. H. B. Nason, describes and illustrates the recent French and Russian air-ships, or, more properly, dirigible balloons. "Marine Disasters on Pacific Shores" is a review of some of the notable wrecks that have occurred on the Pacific Coast during the past dozen years or so.

The June "North American Review" opens with a paper on "Conditions and Prospects of the Treasury," by Secretary Gage, in which he states that the treasury's deficit for the fiscal year ending on June 30 will probably not exceed $112,000,000, and will not be more than $30,000,000

in the year following. In the same magazine, Mr. S. N. D. North describes the work which the Industrial Commission at Washington has undertaken to perform, and Hon. James Bryce writes on "Commercial Education."

In the "Atlantic" for June, "The Outlook in Cuba" is discussed in a frank manner by a recent visitor to that island. He describes the people and their character, and concludes that should we turn the island over to the Cubans a reign of anarchy, riot and revolution would ensue, which would compel us again to interfere in the interests of civilization. In the same magazine Mr. Jacob A. Riis writes with a caustic pen on the tenement house blight in New York, and bestows well-deserved sarcasm upon the way in which those who have attempted to revise the tenement-house laws are making merchandise of the lives of those whose misfortune it is to have to dwell in the city slums.

The June "Century" is an out-of-doors' number, replete with papers that smack of fields and forests and recreation. One article deserving especial mention here is an investigation of the tramp evil on American railways by Josiah Flynt, in which is related the manner in which the Pennsylvania Railroad Company has abated the nuisance of tramp-riding on freight and passenger trains.

In "Harper's" for June, we find an interesting account of five notable inventions, which are credited to Korea. They are the metal type, the iron-clad, the suspension bridge, the bomb and the mortar. The suspension bridge was a hastily-constructed military structure, which was built in 1592. Its span is not given, but it is stated that it was crossed by an army of 120,000 men. Dr. Henry S. Williams describes the progress which this century has seen in placing the profession of medicine upon a scientific basis. "Needful Precautions for Safe Navigation" is the title of an article by Mr. John Hyslop, in which a notable suggestion is made respecting the system of laying courses at sea. Instead of placing this entirely upon the captain, as at present, he would place it on one of the junior officers, and leave to the captain the duty of checking and approving his subordinate's work. He points out how such a system might have saved both the "Mohegan" and the "Paris." He also points out the need for improved davits to facilitate the launching of boats at sea. The rescue of the Behring Sea whalers last year is graphically described by Lieut. E. P. Bertholf, U. S. R. C. S., in the same magazine.

The June "Review of Reviews" contains an admirable review of the recent trust organizations, by Mr. Byron W. Holt. We have seen nowhere an abler article on the subject, and there is so much misinformation and crude comment going the rounds of the newspapers with regard to the trusts, that we strongly advise our readers to obtain and study this article. The editorial review of trusts in the same magazine is also deserving of a word of praise. The June "Popular Science Monthly" opens with a paper on "A New Method of Estimating the Age of Niagara Falls," by Prof. G. F. Wright, and the field for American capital in the Philippines is reviewed by Mr. J. Russell Smith.

GENERAL SPECIFICATIONS FOR STEEL ROOFS AND BUILDINGS. Fourth Revised Edition with Tables.—By Charles Evan Fowler, M. Am. Soc. C. E. Paper; 6 × 9 ins.; pp. 16; illustrated; 25 cts.

This edition of these well-known specifications contains three pages of new matter relating to Pratt truss spans of six, eight, ten and twelve panels. Unlike most published specifications, these are fully indexed.

TRANSACTIONS: ENGINEERING ASSOCIATION OF THE SOUTH. Vol. IX.—Published by the Association, Robt. L. Lund, Editor, 1000 Broad St., Nashville, Tenn. Paper; 6 × 9 ins.; pp. 85; $2.

The papers contained in this volume of the "Transactions" are: "Small Railway Culverts, by Hunter McDonald; "The Relation of Biology to the Purification of Public Water Supplies," by Paul M. Jones; "A Typical Loading for Railway Bridge Specifications," by W. H. Schuerman; "Phosphate Rock in the South," by John S. O'Neal; "Coal Cast Sheets," by J. J. Ormsbee. These papers are followed by the annual address of the President, the annual report of the Secretary, list of members and miscellaneous reports and proceedings.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3⅛ x 6 ins., and 9 x 12 ins.)

CONCRETE STAIRS.—Aberthaw Cons. Co., Boston, Mass. Pamph.; 8 × 6 ins.; pp. 16; illustrated.

This pamphlet describes the construction of stairs by the Ransome system of concrete and twisted iron.

CABLE HOIST-CONVEYORS.—The Trenton Iron Co., Trenton, N. J. Cloth; 5¾ x 8 ins.; pp. 34; illustrated.

This little book illustrates and describes in an unusually complete manner for a trade publication the well-known Hall patent cable hoist-conveyor manufactured by the company named above.

SCRAPERS AND WHEELBARROWS.—Kilbourne & Jacobs Mfg. Co., Columbus, O. Paper; 6 × 9 ins.; pp. 80; illustrated.

This is a catalogue and price-list of a great variety of wheelbarrows, wheel and drag scrapers, dump carts and miscellaneous articles.

DIAMOND DRILLS.—Sullivan Machinery Co., Chicago, Ill. Paper; 7½ × 11¾ ins.; pp. 104; illustrated.

The bulk of the space in this catalogue is devoted to a very clear and complete explanation and description of the various forms of diamond prospecting drills, but it also contains information relating to the firm's rock drills and channeling machines. The illustrations and descriptions are unusually well designed to explain the construction and operation of the several machines.

SPECIFICATIONS FOR ASPHALT ROOFING AND FLOORING.—The Assyrian Asphalt Co., 311 Tacoma Building, Chicago, Ill., is sending out specifications for the asphalt composition roofing and the asphalt flooring which it manufactures and lays, and will send copies to any address on request.

SIDEWALK LIGHTS.—T. H. Brooks & Co., Cleveland, O. Pamph.; 6 × 9 ins.; pp. 32; illustrated.

The bulk of this pamphlet is devoted to a description of the various forms of sidewalk lights made by the company named, but it also describes the Wellman fuel gas producer and a variety of forms of steam radiators.

SAND CEMENT.—The Standard Silica Cement Co., New York city. Paper; 11 × 8½ ins.; pp. 24; illustrated.

This pamphlet describes briefly the nature of sand cement, and gives a number of tables of tests made to determine its various qualities. There are a number of handsome half-tone views of structures in which this cement has been employed.

PUSH AND DUMP CARS.—Atlas Bolt & Screw Co., Cleveland, O. Pamph.; 9 × 6 ins.; pp. 46; illustrated.

This pamphlet illustrates and describes a variety of forms of push cars for brickmakers, steel and wooden dump cars, transfer cars, portable track, turntables, wheelbarrows, etc., and gives their weight, capacity, size, gage, etc.

RUSSELL SNOW-PLOWS.—The Russell Snow-Plow Co., Boston, Mass. Pamph.; 9 × 6 ins.; pp. 33; illustrated.

This pamphlet describes briefly the construction of the various forms of Russell single and double truck snow-plows, combination and elevator snow-plows and flangers, and also explains their design and operation by means of drawings and half-tone views.

TILE AND IRON ROOFING.—Ludowici Roofing Tile Co., 419 Chamber of Commerce, Chicago, Ill. Paper; 3½ × 6 ins.; pp. 8; illustrated.

The special construction described in this little pamphlet consists in the use of tiles laid directly upon the iron framing of the roof, without sheathing. The system is in use at a number of factories, and at one of the Chicago electric light stations.

STEEL ROLLING DOORS.—The Kinnear & Gager Co., Columbus, O. Pamph.; 11½ × 8½ ins.; pp. 26; illustrated.

This pamphlet describes briefly the special form of steel rolling doors, shutters, partitions, etc., made by the company named, and gives a number of half-tone illustrations showing their application to different types of buildings for different purposes.

COAL MINING MACHINERY.—The Jeffrey Mfg. Co., Columbus, O. Paper; 9¼ × 6¼ ins.; pp. 80; illustrated.

The machinery shown in this catalogue includes various forms of chain coal-cutting machines, operated by electric motors or compressed-air engines, and cutting vertically or horizontally. Electric drills, electric locomotives of 2 to 15 tons weight, and electric pumps mounted on mine trucks are also shown.

SOLID METAL FLOORS.—Geo. B. Francis, E. P. Dawley, Providence, R. I. Pamph.; 6½ × 4 ins.; pp. 15; illustrated.

This pamphlet illustrates and describes briefly the solid trough floor patented by the gentlemen named above and used in a number of places upon the recent improvements of the New York, New Haven & Hartford R. R. lines. A description of this type of floor was published in Engineering News of Nov. 15, 1894.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng. News.
June 15.	Dredging,	Newport, R. I.	May 18
	Advertised, Eng. News, May 18 to June 8.		
June 15.	Dredging,	Chicago, Ill.	May 18
	Advertised, Eng. News, May 18 to June 8.		
June 15.	Dredging,	Galveston, Tex.	May 18
	Advertised, Eng. News, May 18 to June 8.		
June 15.	Dredging,	Portland, Me.	May 18
	Advertised, Eng. News, May 18 to June 8.		
June 15.	Dredging,	Tampa, Fla.	May 25
	Advertised, Eng. News, May 25 to June 8.		
June 15.	Dam, masonry, etc.,	Clinton, Mass.	June 1
	Advertised, Engineering News, June 1.		
June 15.	Concrete core-walls,	Clinton, Mass.	June 1
	Advertised, Engineering News, June 1.		
June 15.	Cut stone,	Washington, D. C.	June 1
	Advertised, Eng. News, June 1 and 8.		
June 15.	Dams, etc.,	Boston, Mass.	June 8
	Advertised, Engineering News, June 8.		
June 15.	Asphalt paving,	Erie, Pa.	June 8
	Advertised, Engineering News, June 8.		
June 16.	Street improvement,	Paterson, N. J.	June 15
June 16.	Bridge,	Queensbury, N. Y.	June 15
June 16.	Asphalt paving,	Utica, N. Y.	June 15
June 17.	Dump scows (3),	Chattanooga, Tenn.	May 18
	Advertised, Eng. News, May 18 to June 8.		
June 17.	Steel bridges (3),	Salina, Kan.	June 8
June 17.	Asylum building,	Bridgeport, Conn.	June 8
June 17.	Repair shop,	Port Royal, S. C.	June 8
June 17.	Asylum building,	Anoka, Minn.	June 8
June 17.	Asylum building,	Hastings, Minn.	June 8
June 17.	Dredging,	Brooklyn, N. Y.	June 8
June 17.	Paving blocks,	Washington, D. C.	June 8
	Advertised, Engineering News, June 8.		
June 17.	Street improvements,	Rockledge, Pa.	June 8
June 17.	Sewers,	Wahpeton, N. Dak.	June 8
	Advertised, Engineering News, June 8.		
June 17.	Bridge,	Winnipeg, Man.	June 8
June 17.	School building,	Washington, D. C.	June 8
June 17.	Electrical supplies,	Chicago, Ill.	June 15
June 18.	Electric power,	Plaquemine Bayou, La.	May 18
June 18.	Barracks, etc.,	Newport, R. I.	June 15
June 19.	Water bonds,	Morton, Minn.	May 25
June 19.	Paving,	Ashland, O.	May 25
June 19.	Bridges (3),	Lebanon, O.	June 1
June 19.	School building,	Lattasburg, O.	June 1
June 19.	School building,	Carrollton, O.	June 1
June 19.	School building,	Charles City, Ia.	June 1
June 19.	School building,	Glenville, Minn.	June 1
June 19.	Sewer,	Toledo, O.	June 1
June 19.	School building,	New York, N. Y.	June 8
June 19.	Army building,	Burlington, Vt.	June 8
June 19.	Army barracks, etc.,	Fort Meade, S. Dak.	June 8
June 19.	Iron bridge,	Atlantic City, N. J.	June 8
	Advertised, Engineering News, June 8.		
June 19.	School building,	Bridgeport, Conn.	June 15
June 19.	Brick paving,	Albany, N. Y.	June 15
June 19.	Electric plant,	Chicago, Ill.	June 15
June 19.	Brick paving,	Galesburg, Ill.	June 15
June 19.	Police station,	Philadelphia, Pa.	June 15
June 19.	School building,	Omaha, Neb.	June 15
June 20.	Electric lighting,	Danville, Ky.	June 15
	Advertised, Eng. News, May 18 to June 1		May 18
June 20.	Viaduct,	Norwalk, O.	May 25
June 20.	U. S. building,	Helena, Mont.	June 1
June 20.	School building,	Blooming Prairie, Minn.	June 1
June 20.	Electric plant,	Cincinnati, O.	June 8
June 20.	Sewers,	Washington, D. C.	June 8
	Advertised, Engineering News, June 8.		
June 20.	Public lighting,	Salem, Ore.	June 8
June 20.	Removing dead animals,	Alleghany, Pa.	June 15
June 20.	School building,	Depere, Wis.	June 15
June 20.	Heating system,	Detroit, Mich.	June 15
June 20.	Hospital building,	Steubenville, O.	June 15
June 20.	Bank building,	Rockwell City, Ia.	June 15
June 20.	Rebuilding crib,	Chicago, Ill.	June 15
June 20.	Water-works,	Nora Springs, Ia.	June 15
June 20.	Street improvement,	Onondaga, N. Y.	June 15
June 20.	Street improvement,	Syracuse, N. Y.	June 15
June 20.	Brick paving,	Biloxi, Miss.	June 15
June 20.	Bridge,	Cohoes, N. Y.	June 15
June 21.	Rip-rap,	Rock Island, Ill.	May 25
	Advertised, Eng. News, May 25 to June 15.		
June 21.	School building,	Elizabeth, N. J.	June 8
June 21.	Sewers,	New York, N. Y.	June 15
June 21.	Fire hall,	Toronto, Ont.	June 15
June 21.	Pumping engine, etc.,	Fishkill Land'g, N. Y.	June 15
June 21.	Water pipe, etc.,	West Hammond, Ill.	June 15
June 21.	Asphalt paving,	Rochester, N. Y.	June 15
June 21.	Pike roads,	Vernon, Ind.	June 15
June 21.	Steel smokestacks (2),	Chicago, Ill.	June 15
June 22.	Court house,	Marietta, Ga.	May 11
June 22.	Breakwater,	Calumet Harbor, Ill.	May 25
	Advertised, Eng. News, May 25 to June 15.		
June 22.	Dredging,	Coxsackie, N. Y.	May 25
	Advertised, Eng. News, May 25 to June 15.		
June 22.	Traprock quarry,	East Haven, Conn.	June 1
	Advertised, Eng. News, June 1 and 8.		
June 22.	Steel bridges (10),	Evansville, Ind.	June 8
June 22.	Lockkeeper's house,	St. Paul, Minn.	June 8
June 22.	Sewers, etc.,	Kiowa Agency, Okla.	June 8
June 22.	Brick paving,	Findlay, O.	June 8
June 22.	Removing garbage,	Buffalo, N. Y.	June 15
June 22.	Macadamizing,	Madison, N. J.	June 15
June 22.	Sewers,	Baraboo, Wis.	June 15
June 22.	Channel,	Cottage City, Mass.	June 15
June 22.	Hospital building,	Cohoes, N. Y.	June 15
June 22.	Removing night soil,	Providence, R. I.	June 15
June 22.	Brick paving,	Salamanca, N. Y.	June 15
	Advertised, Engineering News, June 15.		
June 22.	Channel,	Cottage City, Mass.	June 15
	Advertised, Engineering News, June 15.		
June 22.	Lumber, etc.,	New York, N. Y.	June 15
June 23.	Iron bridges (6),	Williamsport, Pa.	June 8
June 23.	Drawbridge,	Orillia, Wash.	June 8
June 23.	Pipe sewers,	Waukesha, Wis.	June 15
June 23.	Sewers,	Buffalo, N. Y.	June 15
June 23.	Asphalt paving,	Hamilton, O.	June 15
June 23.	Highway,	Merrill, Wis.	June 15
June 24.	Electric plant,	Newport, R. I.	May 25
	Advertised, Eng. News, May 25 to June 15.		
June 24.	Paving,	Pittsburg, Pa.	June 15
June 24.	Sewers,	Pittsburg, Pa.	June 15
June 24.	Well and pump,	Philadelphia, Pa.	June 15
June 24.	Stone roads,	Long Branch, N. J.	June 15
	Advertised, Engineering News, June 15.		
June 24.	Navy yard buildings,	New York, N. Y.	June 15
June 24.	Business building,	Wahpeton, N. Dak.	June 15
June 25.	School building,	Hokah, Minn.	June 8
June 25.	Plans for sewers,	Baton Rouge, La.	June 8
June 25.	Drainage,	Baton Rouge, La.	June 8
June 25.	Brick paving,	Verona, Pa.	June 15
June 26.	Iron bridges,	Monticello, Mo.	June 1
June 26.	Rubble stone,	Boston, Mass.	June 1
	Advertised, Eng. News, June 1 to 22.		
June 26.	Excavation,	Buffalo, N. Y.	June 1
	Advertised, Eng. News, June 1 to 22.		
June 26.	Sewers,	Wabash, Ind.	June 15
June 26.	School building,	Stewartville, Minn.	June 15
June 26.	Artesian well,	Tarboro, N. C.	June 15
	Advertised, Eng. News, June 15 and 22.		
June 26.	Asphalt paving,	Cortland, N. Y.	June 15
	Advertised, Eng. News, June 15 and 22.		
June 27.	Pumping engines (2),	St. Louis, Mo.	May 4
June 27.	Dredging,	Boston, Mass.	June 1
	Advertised, Eng. News, June 1 to 22.		
June 27.	Tainter gates,	St. Paul, Minn.	June 1
	Advertised, Eng. News, June 1 to 22.		
June 27.	Bridge,	Sauk Rapids, Minn.	June 8
June 27.	Jetties,	Port Hartford, Cal.	June 8
June 27.	Harbor work,	San Luis Obispo, Cal.	June 8
June 27.	Electric plant,	West Newton, Pa.	June 1
June 27.	Reconstructing pumping station,	St. Louis.	June 8
June 27.	Paving,	Dallas, Tex.	June 15
June 27.	Broken stone,	New York, N. Y.	June 15
June 28.	Building work,	Chemawa, Ore.	May 25
June 28.	Dredging,	Boston, Mass.	June 1
	Advertised, Eng. News, June 1 to 22.		
June 28.	Electric plant,	St. Paris, O.	June 8
	Advertised, Eng. News, June 1 to 15.		
June 28.	Lanterns (3),	Tompkinsville, N. Y.	June 15
	Advertised, Eng. News, June 15 and 22.		
June 28.	Reservoir,	West Point, Neb.	June 15
June 28.	Garbage plant,	Lancaster, Pa.	June 15
June 28.	Brick paving,	Norwich, N. Y.	June 15
	Advertised, Eng. News, June 15 and 22.		
June 28.	Masonry arches,	Cleveland, O.	June 15
	Advertised, Eng. News, June 15 and 22.		
June 29.	Random stone,	Key West, Fla.	June 1
	Advertised, Eng. News, June 1 to 22.		
June 29.	Dredging,	Tampa, Fla.	June 1
	Advertised, Eng. News, June 1 to 22.		
June 29.	Arch bridge,	Natick, Mass.	June 8
June 29.	Wall—Channel,	Albany, N. Y.	June 15
	Advertised, Eng. News, June 15 and 22.		
June 30.	Street work,	Parabelem, Brazil.	May 4
June 30.	Electric r'y (23 miles),	Shanghai, China.	Mar. 2
	Advertised, Eng. News, Nov. 17 to Dec. 8.		
June 30.	Tug boat,	New Orleans, La.	June 8
June 30.	Levee work,	New Orleans, La.	June 8
June 30.	Barges (6),	New Orleans, La.	June 8
	Advertised, Eng. News, June 8 to 22.		
June 30.	Sewers,	Marshall, Mich.	June 15
	Advertised, Eng. News, June 15 and 22.		
June 30.	Dredging,	Cleveland, O.	June 15
	Advertised, Eng. News, June 15 and 22.		
June 30.	School building,	Parnell, Ia.	June 15
June 30.	Dredging,	Goshen Creek, N. J.	June 15
June 30.	Indian school work,	Walker, Minn.	June 15
June 30.	Water-Works,	Chapel Hill, N. C.	June 15
	Advertised, Engineering News, June 15.		
June 30.	Water and electric plants,	Belgrade, Minn.	June 15
June 30.	Water and sewer systems,	Walker, Minn.	June 15
July 1.	Revetments,	Duluth, Minn.	June 1
	Advertised, Eng. News, June 1 to 22.		
July 1.	Reservoir and conduit,	Lansingburg, N. Y.	June 8
July 1.	Ordnance supplies,	Governor's Island, N. Y.	June 8
July 1.	Sewerage system,	Wallace, Idaho.	June 15

RAILWAYS.

ANNAPOLIS & CHESAPEAKE.—This is a single track line of railway now being built from the Annapolis & Baltimore Short Line, at Annapolis, Md., into the Naval Academy grounds, a distance of about one mile. P. J. Cahill, Pres., Brooklyn, N. Y.; John W. Brown, Boston, and J. W. Owens, Annapolis, are incorporators.

BLACKWELL & SOUTHERN.—Incorporated in Oklahoma, June 3, with $300,000 capital stock, to construct an extension of the Atchison, Topeka & Santa Fe, from Hunnewell to Blackwell, and thence to Perry. E. P. Ripley, Chicago; W. H. Morten, Guthrie, Okla., directors.

BRAZIL.—Bids are asked by the Brazilian government, at Rio de Janeiro, until July 31, for the lease of three state railways: the Southern Pernambuco, the Sao Francisco and the Paulo Affonso lines.

CENTRAL ONTARIO.—We are informed that the time for receiving bids for the construction of its 21-mile extension of this line to Bancroft, Ont., requiring grading, fencing, bridge work, etc., has been postponed from June 6 to June 15. George Collins, Gen. Supt.; John D. Evans, Gn. Engr., Trenton, Ont.

CHATTANOOGA, ROME & SOUTHERN.—This company is contemplating the extension of its line from the present terminus at Carrollton, Ga., about 25 miles south towards Columbus, Ga. Nothing definite has yet been decided. C. B. Wilburn, Pres., Rome, Ga.

CHOCTAW & MEMPHIS.—F. A. Molitor, Ch. Engr., Little Rock, Ark., informs us that this line will extend from Howe, Ind. Ter., to Little Rock, via Hartford, Mansfield, Booneville, Magazine and Danville, Ark., 165 miles. Johnston Bros. & Faught, St. Elmo, Ill., and McCarthy & Reichardt, Little Rock, are the general contractors. Grading has been completed for 100 miles; track has been laid to Booneville, 50 miles, and ten of 28 superstructures are in place. The line is expected to be ready for operation on Oct. 1. Francis I. Gowen, Pres., Philadelphia, Pa.

COAST RY. OF NOVA SCOTIA.—L. H. Wheaton, Ch. Engr., Yarmouth, N. S., informs us that all surveys have been made, the entire right of way voted by the municipalities, and the capital secured for this proposed line from Yarmouth to Halifax, Nova Scotia, 225 miles, and of which 31 miles have been in operation for two years. About 500 men are now at work on the next 20 miles, from East Pubnico to Barrington, and it is expected to complete this extension by Sept. 1. The work between Yarmouth and Lockeport has been let to the Nova Scotia Development Co., Stephen Girard Bldg., Philadelphia, Pa., which has sub-let all contracts to H. J. Townsend & Co.; Woods Harbor, N. S. No other contracts have been arranged for, as some revisions in location are necessary.

DOTHAN, HARTFORD & FLORIDA.—J. P. Pelham, Pres., Dothan, Ala., informs us that surveys have been made and right of way obtained for this proposed line from Dothan to Hartford, 25 miles, through agricultural and timber districts, with a probable further extension to St. Andrews Bay or Pensacola, Fla. Capital is now being negotiated for, and contracts are expected to be let within the next three months.

GREENBRIER RIVER.—Reports state that a contract has been entered into between Decatur Axtell, Vice-Pres. of Chesapeake & Ohio Ry. Co., Richmond, Va., and J. T. McGraw, representing the landowners in Greenbrier and Pocahontas counties, W. Va., whereby the latter agrees to furnish the complete right of way and pay costs for constructing this proposed extension of the Chesapeake & Ohio from Ronceverte, W. Va., to the forks of the Greenbrier River, 96 miles. It is expected to have work completed to Marlinton by Oct. 1.

JACKSONVILLE & ST. JOHN'S RIVER.—Incorporated in Florida, with $20,000 capital stock, to build through Duval, Clay, Putnam, Volusia and Orange counties, to Sanford, Fla., 136 miles, with branches to Enterprise and Deland. The incorporators are: H. B. Plant, R. G. Erwin, J. M. Lee, F. Q. Brown and others.

LAUREL & NORTHWESTERN.—We are informed that the Gulf & Ship Island R. R. Co. has bought this new line from Eastman, Gardiner & Co., Laurel, Miss. It is now completed for 15 miles northwest of Laurel, Miss., and a large force of men is now extending it to Leaf River. The work will be continued under the new management, and a junction made with the Gulf & Ship island, about 40 miles west of Laurel. The survey for the main line of the Gulf & Ship Island R. R. is now being made into Jackson, Miss., and the road will enter that city in several months. J. B. Hatch, Ch. Engr., Gulfport, Miss.

MENOMINEE & ST. PAUL.—Incorporated in Michigan, June 9, with $2,000,000 capital stock, to construct a line from Menominee, Mich., to St. Paul, Minn., 300 miles. Samuel M. Stephenson, Pres., Menominee; H. W. Ashley, Gen. Mgr., Toledo, O.

MILL CREEK VALLEY.—Incorporated in Pennsylvania, June 13, with $260,000 capital stock, to build a steam railway in Jefferson and Elk counties, Pa. Edwin E. Tait, Pres.; George Paton and J. M. Sloan, of Bradford.

MINNESOTA & NORTHWESTERN.—Reports from Mason City, Ia., state that the Bethune-Craney Construction Co. has received the contract for 74 miles of grading on this new line from Lake Mills to Parkersburg, Ia. W. E. Brice, Pres.

NORWAY.—A belt line railway around Christiania is projected, but it is not yet settled when work will begin. A new railway station in which the Eastern and Western systems entering the city will meet is also to be built. Harbor and docking improvements to cost about $4,500,000 are being planned, and new municipal and government buildings are to be erected.

NYACK & SOUTHERN.—Incorporated in New York, with $50,000 capital stock, to build a standard gage railway from Nyack, N. Y. J. G. McCullough, Bennington, Vt., and G. M. Cummings, New York, are incorporators.

RICHMOND, PETERSBURG & CAROLINA.—This railway has been completed for 20 miles south of Petersburg, Va., and the J. P. McDonald Co., of New York, William Kenefick, Construction Supt., is now at work with the intention of completing the line this year. The route runs from Richmond, Va., to a connection with the Seaboard Air Line, at Ridgeway, N. C., 107½ miles. Most of the right of way has been obtained. De Witt Smith, Pres.; Gen. James S. Negley, Vice-Pres. and Gen. Mgr., 141 Broadway, New York.

RUSSIA.—The Russian minister for transportation has sanctioned the construction of a railway from Batajsk, 10 verst south from Rostow, on the Rostow-Wladikaw line over Willikoknjaschessaja, on the Tichorez-Kaja-Larizyn Ry., to Astrachan. One-half of this line will go through the district of the Cossacks of the Don and the other half through the steppes of the Calmucks, a desert with but few inhabitants. The city of Astrachan favors a line on the left bank of Wolga River, through the Kirgisen steppes to Kamyschin, on the Tambon-Kamyschin Ry., a popular district with large live stock and rich salt deposits. Astrachan has had no railway connection until now, depending entirely upon the traffic of the Wolga. The construction of the line from Jekateri, along the northeast coast of the Black Sea to Suchumkale, is also to be pushed by the Wladikaw-Kaser Ry. Co.

SIAM.—The Siamese government announces that the concession granted March 4, 1891, to Charles Dunlop, of Singapore, for the construction of a railway from Singora to Kedah, has been cancelled. The agreement provided that the work should be completed within eight years, and at the time it seemed likely that the Kedah & Singora line would be the first railway opened in Siam. There were no serious engineering difficulties in the way, and almost a certainty of a paying traffic apart from the mines, which were believed to be a source of great wealth. The distance from Singora to the chief town of Kedah is 76 miles, and from the latter place the line was to run another 60 miles to Kulem, a tin district at the southernmost part of the Kedah Province. European capitalists will not invest unless some return is guaranteed on their capital, but the government will not guarantee them any return.

SOUTHERN.—T. B. Jones & Co., Baltimore, Md., are reported to have been awarded the contract for constructing the extension for this system, from Cayce's Station, near Columbia to the Carolina Midland branch at Perry, S. C., 31 miles. Work has been commenced and will be completed by Nov. 1. W. H. Wells, Ch. Engr., Washington, D. C.

SOUTHERN PACIFIC.—Ramish & Marsh, 218 New High St., Los Angeles, Cal., are stated to have received the contract for constructing three miles of coast railway beyond Eagle Canyon, 13 miles from Santa Barbara, Cal., for this company. It is said that 100 men will be employed at once on this section of the line. William Hood, Ch. Engr., 4 Montgomery St., San Francisco, Cal.

TEXAS NORTHERN.—F. B. Johnson, Anderson, Tex., is reported to have received the contract for grading the roadbed of this line between Anderson and Stoneham, Tex., 12 miles. Work is to be completed by Aug. 15.

WHEELING & LAKE ERIE.—A meeting of the stockholders of this company will be held at 416 Spitzer Bldg., Toledo, O., June 26, to vote upon the purchase of the Cleveland, Canton & Southern Ry., and the Cleveland Belt & Terminal Ry., and for the purchase of new and additional equipment and improvement of the property to be purchased. J. H. Dowland, Secy.

WYOMING SOUTHERN.—Incorporated in Wyoming June 8 with $1,000,000 capital stock, to construct a line from a point near Fort Steele, Carbon county, Wyo., to the Colorado state line, near the North Platte River. H. A. Frambach, Pres., Denver, Colo.; Henry H. Boyce, Treas.

STREET AND ELECTRIC RAILWAYS

FAIRFIELD, ME.—We are informed that Ira E. Getchell, Waterville, Me., is making surveys for an extension of the Benton & Fairfield Electric Ry. to a connection with the Somerset branch of the Maine Central R. R., about one mile distant. The company now operates 2½ miles of line, mostly along a private right of way adjoining the highway, from the Sebasticook mill to the Maine Central. The Kennebec Fibre Co., on the Sebasticook River, and the Somerset Fibre Co., on the Kennebec River, are said to have consolidated.

SOUTH THOMASTON, ME.—We are informed that N. C. Bassick & Son, South Thomaston, will construct a short line of railway to connect their granite quarries with their wharf. Electric traction will probably be used.

GREENFIELD, MASS.—It is reported that the Bay State Construction Co. is about to begin work on the extension of the Greenfield & Turner Falls St. Ry. to Montague. F. E. Lowe, Pres., Greenfield.

BARRINGTON, R. I.—O. S. Anthony, P. O. Box 50, Providence, R. I., informs us regarding the proposed Barrington, Warren & Bristol St. R. R., whose incorporation was noted in our last issue, that the surveys have been made and the right of way obtained in Barrington and Warren, but not yet in Bristol or Swansea, although it will probably be granted in these towns when applied for next month. The route runs from Barrington to Fall River, via Warren, Bristol and Swansea, 16 miles. Contracts for construction will probably be let in July.

GREENWICH, N. Y.—We are informed that grading is in progress on the Greenwich & Schuylerville Electric R. R., and also on the 12-mile extension to Stillwater to a connection with the Stillwater & Mechanicsville St. Ry. Another extension will be built later to Fort Edward, to connect with the Glen Falls, Sandy Hill & Fort Edward St. Ry. G. S. Leavenworth, Ch. Engr., Schuylerville, N. Y.

ALLENTOWN, PA.—We are informed that the Lehigh Engineering Co., Commonwealth Bldg., Allentown, began surveys June 8, with a corps of eight men, for the line of the Allentown & Slatington St. Ry., over a private right of way 18 miles in length. Surveys will be completed about June 30, and grading is expected to begin at that time. Hugh E. Crilly, Pres., Allentown.

ASHLAND, PA.—The Ashland & Centralia Electric Ry. Co. was incorporated June 13, with $50,000 capital stock, to construct an electric line between Ashland and Centralia. T. M. Righter, Pres., Mount Carmel, Pa.; Morris Williams, Wilkesbarre, Pa., and Wm. A. Mair, Ashland.

FREEMANSBURG, PA.—The Freemansburg St. Ry. Co. was incorporated June 7, with $60,000 capital stock, to build four miles of line from Butztown to South Bethlehem, via Freemansburg. H. E. Crilly, Pres.; J. H. Pascoe, Allentown; Warren A. Wilbur, South Bethlehem, Pa.

KUTZTOWN, PA.—Henry J. Schmick, Pres., Hamburg, Pa., informs us that the surveys have been made and the right of way obtained for the proposed Kutztown & Fleetwood St. Ry., incorporated June 1, to construct 6½ miles of line from Kutztown to Fleetwood, via Maselem Springs. The contract for construction has been let to Alexander Murdoch, Hamburg.

MOUNT JEWETT, PA.—C. E. Brown, Pres. of Mount Jewett & Marvin Creek St. Ry., Mount Jewett, informs us that the line will run from Mount Jewett to Marvendale, via Hazlehurst, six miles. The survey has not been completed, and the right of way is only partly obtained; $25,000 is yet to be placed. The prospects for completion are thought to be good, as there is a large traffic between these towns, and natural gas is abundant. H. H. Henshey, Ch. Engr., Mount Jewett.

OXFORD, PA.—The Oxford & Kennett Electric Ry. Co. was incorporated June 12, with $100,000 capital stock, to build from Oxford to Kennett Square, Chester county. George W. Taft, Pres., and B. F. Wickersham, of Kennett Square, and S. R. Dickey are incorporators.

CONNEAUT, O.—The A.B. Norton Construction Co., Altoona, Pa., is reported to have been awarded the contract for constructing a portion of the Pennsylvania & Ohio R.R., to be completed by July 1.

LIMA, O.—The Lima, Toledo & Cincinnati Ry. Co. has been incorporated, with $500,000 capital stock, to construct an electric railway from Toledo to Dayton, 143 miles, parallel to the Cincinnati, Hamilton & Dayton Ry. C. H. Adkins, Lima; B. S. Henderson, and A. S. Manhard are incorporators.

PAINESVILLE, O.—The Painesville & Northern R. R. Co. was incorporated June 3, with $25,000 capital stock, to build from Painesville to Richmond. Frank J. Jerome, Percy K. Smith and W. T. Cowles are incorporators.

INDIANAPOLIS, IND.—We are informed that the proposed Indianapolis, Martinsville & Southern Ry. will run from Indianapolis to Martinsville, via Glens Valley and Waverly, 27 miles, between the lines of the Indianapolis & Vincennes R. R. and the Jefferson, Madison & Indianapolis R. R. Martinsville is on the White River, and on account of its mineral waters fourteen sanitariums are located there. It is now proposed to make Waverly a similar resort. It is about 14 miles from Indianapolis, and on the White River. This company has secured the water privileges at that place, and expects to obtain enough power to operate its road. From Martinsville to Waverly a private right of way has been secured, and from Waverly to Indianapolis franchises over the highway have been obtained. There will be little grading beyond two miles from this city, and five bridges will be erected, none more than 30 ft. long. Besides passenger traffic to Waverly, as the result of making that place a suburban resort, it is also expected to handle freight from the farms and dairies. Daniel Lesley, Pres., Franklin Insurance Co. Bldg., Indianapolis.

PORT HURON, MICH.—We are informed that M. A. McCarron, the street railway promoter of Detroit, Mich., has secured for himself and associates the right of way for 87 miles of electric railway along the shores of Lake Huron, from Port Huron to Port Austin. The construction of the road will commence in the spring of 1900, to be completed the following September.

GREENVILLE, MICH.—Messrs. Plumb, Rice and Russell, Grand Rapids, Mich., are reported to have been granted a franchise to build a line from this city to Grand Rapids.

FARGO, N. DAK.—The Benton Power & Traction Co., operating a street railway in St. Cloud, has applied for a franchise to build in this town.

CONNOR, KAN.—Hayes & Beverforden are reported to have received the contract for erecting the power house and car barns for the Kansas City & Leavenworth Electric Ry. at Connor, to cost about $35,000. The smokestack will be 135 ft. high, with a 24-ft. square base.

KANSAS CITY, MO.—W. O. Hands, Ch. Engr. and Mgr., P. O. Box V, Kansas City, informs us that active operations will begin on the East Side Electric St. Ry., to be six miles in length, before June 25. The capital will be furnished by the Heim Bros., requiring about $120,000, and all work will be done by the company, except, perhaps, the paving. All material has been ordered, and the company is merely waiting to receive the same.

ELECTRIC LIGHT AND POWER.

MEREDITH, N. H.—E. H. Maloon, is it reported, will build a plant, 24 x 26 ft.

NEW HAVEN, CONN.—It is stated that a party of capitalists, who own the electric street railways, propose to secure control of electric light and gas plants in some of the important cities of the state. It is reported that the Connecticut Lighting & Power Co., the head of the combination, will build a dam 30 ft. high across the Housatonic River at Southville. The plant will develop about 30,000 HP. R. A. Smith, Pres., New Haven.

WALLINGFORD, CONN.—The Hyer-Sheehan Electric Motor Co., Newburg, N. Y., has been awarded the contract at $39,640 for putting in a plant.

ALBANY, N. Y.—The Hudson River Power Transmission Co. has asked the state superintendent of public works for permission to place wires along the canals.

CAMILLUS, N. Y.—W. G. Sisson, Lyons, N. Y., has asked for a franchise, according to reports.

FALCONER, N. Y.—G. E. Mix, Dunkirk, N. Y., and H. K. King, Corry, N. Y., purpose to put in a plant.

MOUNT MORRIS, N. Y.—An election will be held this month to vote on the question of issuing $30,000 in bonds for a new steel dam.

ORANGE, N. J.—The council has voted in favor of municipal ownership of the plant.

LEBANON, PA.—The United Power & Transportation Co. has bought the stock of the Edison Electric Illuminating Co. It is stated that the new owners will spend about $100,000 in improving the plant. John A. Rigg, Robt. M. Carson and E. J. Moore, Bullitt Bldg., Philadelphia, are interested.

PERKASIE, PA.—This place has voted to issue $15,000 in bonds for a plant. It is stated that work will be begun at once.

DOVER, DEL.—Bids will soon be asked for a plant, according to reports. Councilmen Hazel and Benson are on the committee.

BALTIMORE, MD.—The board of awards, it is stated by local papers, will soon ask for bids for electric lighting in the city streets. The present contract will expire in September.

WILLIAMSPORT, MD.—The following contracts have been let for furnishing the materials and for erecting a plant: Dynamo and switchboard, the Rumsey Electrical Mfg. Co., Philadelphia, $1,400; other apparatus, excepting machinery, Southern Electric Co., Baltimore; poles, Chas. S. Charlton, A. C. Gruber.

THOMAS, W. VA.—This place is reported to have recently voted on the question of building a plant and water-works.

WAYNESVILLE, N. C.—Reports state that bids for building the proposed plant will soon be let; estimated cost, $5,000. H. B. Ferguson, Mayor.

CHATTANOOGA, TENN.—The manufactures committee of the chamber of commerce is in correspondence with parties who are in favor of advancing money for a power plant. Address President Swaney and Mayor Watkins.

GUTHRIE, KY.—Arrangements are reported as being made for a plant.

BAINBRIDGE, O.—This place is reported to have voted to build a plant.

BAY CITY, MICH.—Local papers state that Superintendent Fitzhugh will soon want about 2,500 new poles for the electric wire lines. Other improvements to the plant are proposed.

GRAND RAPIDS, MICH.—The Grand Rapids Electric Light & Power Co., it is reported, will soon remodel its plant, so as to furnish power for other uses.

SHELBY, MICH.—The Furniture City Electric Co. has been awarded the contract to enlarge the plant here at a cost of about $2,000.

CHICAGO, ILL.—Bids are asked until 11 a. m., June 19, for furnishing the materials, etc., and for constructing the Robert A. Waller electric-light plant; estimated cost, $150,000. L. E. McGann, Comr. Pub. Wks.

CHICAGO, ILL.—Bids are asked until 10 a. m., June 17, for furnishing 100,000 ft. of 3-in. tile pipe; 15,000 ft. of 2½-in. steel pipe; 174,000 sewer brick; 170 manhole collars and covers; 300 bbls. American Portland cement; 348 pieces angle iron, 3 x 3 x 48 ins.; 348 pieces of T iron, 3 x 3 x 48 ins.; 20,000 wire nails for pole protector strips; 6,000 wrought iron spikes for butt guards; 1,000 lag bolts, ⅝ x 3 in.; 1,000 lag bolts, ½ x 4 in.; 1,000 lag bolts, ½ x 7 ins.; 1,000 washers, ⅝-in.; 1,000 washers, ½-in.; 2,000 Western Union steel pins; 2,000 Locust pins, 1¾-in.; 100 lbs. soft copper tie wire; 1,000 6-pin electric light cross arms with holes for 1½-in. pin; 1,000 4-pin electric light cross arms with holes for 1½-in. pin; 300 2-pin electric light cross arms with holes for 1½-in. pin; 1,000 galvanized iron cross arm braces, 1¼ x 3-16 x 28-ins.; 1,000 galvanized iron cross braces, 1¼ x 3-16 x 24-ins.; 100 arc lamp posts; and until June 21 for furnishing and erecting two self-supporting steel stacks for the electric plant. E. B. Ellicott, Cy. Electrician.

DURAND, WIS.—A. J. Goba writes us that the scheme to build a power plant here is practically assured, and there is no doubt but that it will soon be built.

MILWAUKEE, WIS.—A. M. Patitz, Pabst Bldg., has completed plans for a lighting and heating plant for the county buildings, to cost $11,000. It is said that bids will soon be asked.

BELGRADE, MINN.—Bids are asked until June 30 for constructing a plant and water-works. C. Borgerding, Pres. Village; F. W. Lenz, Recdr.

JOPLIN, MO.—L. A. Hunter has prepared plans for the city plant. The power house will be 48 × 72 ft., and the smokestack 84 ft. high. The contract will be let in a few days, according to reports.

DENVER, COLO.—The council is considering an ordinance authorizing the construction of a city plant, by which it is thought the city may save about $50,000 a year; estimated cost, $169,000. Mayor Johnson, Alderman Currigan and Electrician Sayer may be addressed.

CHICO, CAL.—A company has been formed to build a plant on the property until recently owned by the Butte Creek Gold Mining & Power Co. A plant to cost about $50,000 is proposed, according to reports. Col. Park Henshaw and Wm. Van Horn, of the Canadian Pacific Ry. Co., Montreal, Que., are interested.

FORT POINT, CAL.—Bids are asked until July 7 for furnishing and installing plants at this point. Maj. C. E. L. G. Davis, U. S. Engr., Flood Bldg., San Francisco.

LOS ANGELES, CAL.—It is proposed to call an election soon to vote on the question of issuing $160,000 in bonds for a plant, work to begin about Sept. 1.

SAN FRANCISCO, CAL.—Gray Bros. have been awarded the contract for furnishing and laying the conduits for the Independent Electric Co.'s plant. The contract is said to amount to about $1,250,000, and work on it will begin this month.

VIRGINIA, NEV.—The Floriston Electric Light & Power Co., it is reported, has been organized to build a plant to furnish power to the Comstock lode. The plant will be built on the Truckee River, and it is thought that over 8,000 HP. can be secured.

PORT DALHOUSIE, ONT.—Bids are asked until June 15 for constructing the dam foundation and a flume and tail race, etc., for the power plant for the Toronto Rubber Shoe Mfg. Co., Ltd., 29 Front St, West Toronto, Ont.

BRIDGES.

BUFFALO, N. Y.—The following bids were received June 3 for the construction of the superstructure for the viaduct in Abbott Road; bid No. 1 is according to specifications containing state laws and charter and ordinance requirements; bid No. 2 is according to specifications with these state laws, charter and ordinance requirements eliminated:

	Bid. No. 1.	Bid. No. 2.
The Toledo Bridge Co., Toledo, O.	$132,837	$132,186
Penn Bridge Co., Beaver Falls, Pa.	135,431	133,871
Buffalo (N. Y.) Bridge & Iron Works.	139,128	139,128
Pennsylvania Steel Co., Steelton, Pa.	140,765	140,765
Elmira (N. Y.) Bridge Co., Ltd.	147,690	147,690
King Bridge Co., Cleveland, O.	151,655	151,655
Edge Moor (Del.) Bridge Works.	157,960	157,960

COHOES, N. Y.—Bids are asked by the city clerk until June 20 for the construction of a bridge over the second sprout of the Mohawk River on Ontario St.

EAGLE BRIDGE, N. Y.—M. H. Viets informs us that **a new iron bridge is to be built, with one span of 116 ft.; estimated cost, $6,000; the present structure is wood.**

HORNELLSVILLE, N. Y.—Bids are asked until July 3 for the construction of a 55-ft. plate girder bridge, as stated in our advertising columns (postponed from June 19). F. W. Dalrymple, Cy. Engr.

JAMESTOWN, N. Y.—H. H. Cooper, Mayor, informs us that a committee has been appointed to consider the matter of building a bridge to connect Third St. with its extension; the proposed bridge is to be about 800 ft. long by 70 ft. wide. Geo. Jones, Cy. Engr.

QUEENSBURY, N. Y.—Bids are asked until June 16 for the construction of stone abutments and wing walls for an iron bridge on Bay road, across Halfway brook; also for two wrought iron or steel bridges across the same creek, according to reports. Daniel P. De Long, Supervisor.

ELIZABETH, N. J.—Reports state that the contract for the construction of the iron work for the West Jersey St. bridge has been awarded to Sheriff Wm. T. Kirk, and the mason work to Wm. Farrier of Newmarket at $2,550.

WILKESBARRE, PA.—Jos. D. Lloyd, County Controller, informs us that the contract for constructing 7 iron county bridges was awarded to the Penn Bridge Co., of Beaver Falls, Pa., on June 10, at $7,181.

HARRINGTON, DEL.—It is stated that Frank White has been awarded the contract for the construction of a bridge over the Murderkill River, between this place and Frederica, at $1,020.

WASHINGTON, D. C.—Gen. John M. Wilson, Ch. Engr., has approved the plans prepared by the engineer commissioner for a bridge across Rock Creek on the line of Massachusetts Ave., extended. The bridge will be the full width of the avenue, and will consist of one 50-ft. stone arch, founded on the bedrock, with face walls extending up to the cut-stone parapet. The Cranford Paving Co. has the contract for constructing the foundations, for which $25,000 was appropriated sometime ago. Congress at the last session appropriated an additional $100,000 and authorized the commissioners to enter into a contract for the completion of the work not to exceed $225,000.

CUMBERLAND, MD.—The following bids were received June 6 for the construction of ten steel bridges:

Toledo Bridge Co., Toledo, O. (accepted)	$3,950
Variety Iron Works, Cleveland, O.	3,968
Fort Pitt Bridge Co., Pittsburg, Pa.	4,266
Wrought Iron Bridge Co., Canton, O.	4,298
Penn Bridge Co., Beaver Falls, Pa.	4,500
Pittsburg Bridge Co., Pittsburg, Pa.	4,220
Youngstown Bridge Co., Youngstown, O.	5,076
Structural Iron Co., Baltimore, Md.	4,398
Boston Bridge Works, Boston, Mass	4,610
Groton Bridge & Mfg. Co., Groton, N. Y.	4,510
Canton Bridge Co., Canton, O.	4,450
King Bridge Co., Cleveland, O.	4,600
Massillon Bridge Co., Massillon, O.	4,700

PULASKI CITY, VA.—C. S. Kirkwood, of Churchwood, Va., writes us that it is proposed to build a bridge over New River.

CLEVELAND, O.—Reports state that plans have been submitted to the mayor and the director of public works for a permanent bridge at Willson Ave.

CLEVELAND, O.—Bids are asked by the board of park commissioners until June 28 for constructing two masonry arches, as stated in our advertising columns. C. W. Pratt, Jr., Ch. Engr.

DAYTON, O.—The following bids were received May 31 for the construction of the Wayne Ave. bridge, but all have been rejected: King Bridge Co., $3,983, $4,467, $4,325, $4,082; New Columbus Bridge Co., $5,350; Youngstown Bridge Co., $5,300; Massillon Bridge Co., plan 1, $5,100, plan 2, $4,900; Pittsburg Bridge Co., $5,200; Toledo Bridge Co., plan 1, $4,980, plan 2, $5,018; Lafayette Bridge Co., $4,750; J. G. Wagner Co., Milwaukee, $4,700.

FRANKFORT, IND.—The following bids were received June 5 for the construction of seven bridges: Dunn & Goar, Frankfort, Ind., $4,962; Wabash Bridge Co., Wabash, Ind., $5,200; Indianapolis Bridge & Iron Works, Indianapolis, $5,178; New Castle Bridge Co., New Castle, Ind., $5,180; Attica Bridge Co., Attica, Ind., $5,400; John A. Ross, Frankfort, Ind., $4,885 (accepted); Brackett Bridge Co., Cincinnati, O., $4,992.

GRAND RAPIDS, MICH.—Press reports state that the house passed the bill June 6 permitting this city to vote on the proposition to bond itself for $100,000 for a new bridge on Bridge St.

ROCKFORD, ILL.—It is stated that petitions are being circulated for the construction of a bridge across Rock River at Auburn St.

ABBOTT, NEB.—Bids are asked until July 1 for the construction of a bridge, according to reports. C. H. Menck, County Clk., Grand Island.

WOOD RIVER, NEB.—Bids are asked until July 1 for the construction of a bridge, according to reports. C. H. Menck, County Clk., Grand Island.

FORT WORTH, TEX.—Bids are asked until July 1 for the construction of a viaduct on Jennings Ave., according to reports. J. B. Hawley, Cy. Engr.

MONTESANO, WASH.—Bids are asked until July 1 for constructing a bridge on the John Richardson road across the Little Hoquiam River at New London. J. A. Seels, County Audr.

FERGUS, ONT.—Bids are asked until June 15 for the construction of steel bridges at Fergus and Basworth, the spans to be 150 and 118 ft. Jas. Beattie, County Clk.

BUILDINGS.

TOGUS, ME.—Bids are asked until June 16 for erecting three cottages at the Eastern Branch of the National Home, D. V. S. A. L. Smith, Treas.

NEWPORT, R. I.—Bids are asked until June 18 for building barracks, officers' quarters, administration building, etc., at Fort Grenoble, R. I. E. W. Hubbard, Q. M., Fort Adams, Newport.

BRIDGEPORT, CONN.—Bids are asked by the board of education until June 19 for erecting an 8-room school building at Sterling and Kossuth Sts. Jos. A. O'Brien, Arch., 115 State St.

ALBANY, N. Y.—We are informed that the following bids were received by the city June 5 for erecting a public bath building; all local bidders:

Items.	Michael Daly.	Dennison & Dyer.	Cassidy & Gallagher.
Masonry, brick work, etc.	$10,000	$8,800	$9,163
Iron & steel, including painting.	2,141	1,272	2,291
Copper work, including painting	1,627	1,610	1,627
Carpenter work and hardware	2,849	2,100	2,276
Painting	400	410	320
Slatework	277	390	278
Curbs and sidewalks	143	82	200
Plumbing, gas and drainage	5,588	2,950	2,433
Heating and ventilating	.....	2,390	4,880
Total	.....	$20,072	$23,468
Alternative No. 1, deduct	166	90	100
" No. 2, "	741	710	741
" No. 3, "	805	815	910
Totals: No. 1	.....	$19,982	$23,368
" No. 2	.....	19,362	22,726
" No. 3	.....	20,887	24,378

BROOKLYN, N. Y.—The following bids were received by the board of education, at 585 Broadway, New York, June 12, for erecting an addition to Public School 53, Borough of Brooklyn: W. & T. Lamb, Brooklyn, $111,000; John Fletcher, Brooklyn, $118,000; Mapes-Reeve Construction Co., New York, $119,656; George Hilderbrand, Brooklyn, $126,225; K. A. Murphy, Brooklyn, $130,800.——The following bids for heating and ventilating apparatus in School 63, Brooklyn, were received June 13, all bidders of New York: Blake & Williams, $18,348; E. Rutzler, $18,677; P. Dorf & Co., $18,900; Frank Dobson, $19,100; New York Steam Fitting Co., $19,442; Evans, Almirall & Co., $19,789; Wells & Newton Co., $19,950.——The following bids for heating, ventilating and electric lighting plant in School 75, Brooklyn, were received June 12: Blake & Williams, $10,833; E. Rutzler, $11,195; Wells & Newton Co., $11,294; New York Steam Fitting Co., $11,400; Frank Dobson, $11,435; Evans, Almirall & Co., $11,450; P. Dorf & Co., $11,450.

BROOKLYN, N. Y.—Bids are being received from Brooklyn contractors only, according to reports, for electric work, plumbing, heating, masonry, etc., for houses to be built near Park and Sterling Place, and Brooklyn Ave., for the Multiple Power Co., The Bourse, Philadelphia, Pa., and 2 Wall St., New York.

COHOES, N. Y.—Bids are asked until June 22 for constructing an annex building for the Cohoes hospital. Geo. H. Fitts, Pres.; Wm. H. Goddard, Arch., Cohoes.

HORNELLSVILLE, N. Y.—Bids are asked until June 15 for enlarging the St. James Mercy Hospital building in this city. Charles Adsit, Pres. Bd. of Trustees; J. H. Considine, Arch.

NEW YORK, N. Y.—Plans have been filed by J. L. Miller, 128 Riverside Drive, for a 6-story brick stable on 76th St., near Broadway, to cost $56,000. J. Munckwitz, Arch., 347 West 125th St.; by M. Keslin, 1474 Washington Ave., for four 6-story flat and store buildings at 110th St. and 1st Ave., to cost $156,000. Rudolph Werner, Arch., 7 Teasdale Place; by J. A. Farley, 967 Boulevard, for four 4-story brick dwellings on 106th St., near Riverside Drive, to cost $100,000. Janes & Leo, 765 Boulevard; by Caroline Brilney, 150 Nassau St., for an 8-story brick store and loft building at 43 East 20th St., to cost $115,000. E. G. Gollner, Arch., 150 Nassau St.; by John Glass, Jr., 426 West 23d St., for two 7-story brick store and flat buildings on 14th St., near 8th Ave., to cost $150,000. G. A. Schellenger, Arch.; by F. J. Schnugg, 78 East 96th St., for four 5-story brick flat buildings on 2d Ave., near 92d St., to cost $110,000. Gilbert M. Robinson, Arch.; by the Roman Catholic Orphan Asylum Association, 461 Madison Ave., for a 4 and 5-story brick orphan asylum building at Sedgwick Ave. and 189th st., to cost $500,000. Schickel & Ditmore, Archs., 111 5th Ave.; by Adolph Wexler, for three 6-story brick flat and store buildings at 618 to 624 East 11th St., to cost $75,000. Schneider & Herter, Archs., 48 Bible House.——We are informed that the following bids were received by the bureau of yards and docks, Washington, D. C., June 10, for the structural steel and fireproof floor for the conversion of building No. 8, New York Navy Yard: W. G. Triest, New York, $11,666; Cooper & Wigand, New York, $14,600; Stacy B. Opdyke, Philadelphia, Pa., $12,722; King Bridge Co., Cleveland, O., $12,650; Augustus Smith, New York, $12,400; Penn Bridge Co., Beaver Falls, Pa., $14,370; Post & McCord, Brooklyn, N. Y., $11,630; Pittsburg Bridge Co., Pittsburg, Pa., $11,990.

NEW YORK, N. Y.—Bids are asked by the bureau of yards and docks, Washington, D. C., until June 17 for constructing an administration building for steam engineering, New York Navy Yard; also until June 24 for constructing a pattern shop for steam engineering, and for constructing an oil and varnish storehouse for supplies, 300 × 60 × 30 ft., steel and brick.

SCHENECTADY, N. Y.—Bids are now being received by Edward W. Loth, Arch., 253 Broadway, Troy, N. Y., for the erection of a new building for St. John's Church of this city.

WEST POINT, N. Y.—Bids are asked by the Quartermaster until July 12 for constructing additions to Quarters No. 11, 15, 17, 33, 35 and 41 and 27; also for constructing two new kitchens.

PHILADELPHIA, PA.—Plans are being completed for the new fireproof building to be erected for the Medico-Chirurgical Hospital at 17th and Cherry Sts., to cost about $100,000. Huston & Miller, Archs., Witherspoon Bldg.——Bids are being received for erecting a 4-story brick and iron store building at Manayunk for Forster Bros; estimated cost, $30,000. Kert W. Feuckert, Arch., 1113 Filbert St.——Plans have been filed by Wm. R. Warner for a 9-story building to be erected at 1228 Market St., to cost about $125,000. C. W. Bolton & Co., Archs.——Wm. R. Dougherty, 1604 Sansom St., is reported to have received the contract for erecting an addition to the Jewish Hospital on Old York Road, to cost $60,000. Furness, Evans & Co., Archs., Provident Bldg.——The following bids were received June 5 for erecting two police and fire stations in this city; A. L. English, Director Pub. Safety: J. E. & A. L. Pennock, 305 Walnut St., $35,487 and $22,887; Wm. R. Dougherty, $36,462, $22,741; Thos. M. Seeds, Jr., 1216 Race St., $36,922, $21,394; Macey, Henderson & Co., 1215 Filbert St., $36,082, $21,517.——We are informed that the following bids were received by the bureau of yards and docks, Washington, D. C., June 10, for constructing a workshop and boiler house for ordnance, Navy Yard, League Island: Structural Iron Co., Baltimore, Md., $57,000, informal; Stacy B. Opdyke, Jr., Philadelphia, Pa., $65,491; Penn Bridge Co., Beaver Falls, Pa., $72,850.

PHILADELPHIA, PA.—Bids are asked until June 19 for erecting a police, patrol and fire station at 47th and Carpenter Sts. A. L. English, Dir. Pub. Safety.

WASHINGTON, D. C.—Edwin F. Durang, 1200 Chestnut St., Philadelphia, Pa., is reported to have been selected as architect for the monastery buildings in this city for the Sisters of Notre Dame; total estimated cost, $500,000.

FROSTBURG, MD.—The Cumberland Building Co. was awarded the contract, June 9, for erecting the new State normal school building, at $21,000. The steam fitting, plumbing and gas-fitting were let to Weaver & Hoffman, Baltimore, Md., at $2,755.

COLUMBIA, S. C.—Preliminary plans are asked by this city until Aug. 1 for a new 3-story city hall building, to be erected at Main and Washington Sts., to cost about $25,000. T. T. Talley, Cy. Treas.

AUGUSTA, GA.—A fire in this city, June 6, destroyed a number of business buildings in this city valued at $150,000; insurance, $75,000.

ROME, GA.—The Southern Ry. Co. is reported to have about completed arrangements for the erection of a $50,000 freight station at East St. and 2d Ave. D. W. Lum, Supt. of Bldgs., Atlanta, Ga.

SUMMERVILLE, GA.—Bids are asked until June 17 for building a 2-story fireproof brick jail and jailor's residence. R. D. Jones, Chn.

NEW ORLEANS, LA.—Bids are asked by the supervising architect, Washington, D. C., until July 6, for installing a low pressure and exhaust steam heating plant in the U. S. building in this city.

CAMBRIDGE, O.—Bids are asked until June 15 for erecting a new building for the Second Presbyterian Church of Cambridge. W. V. Garvin, Chn.; Strutmers & Hannah, Archs.

STEUBENVILLE, O.—Bids are asked until June 20 for erecting a hospital building here. Address J. J. Gill.

BARBERSVILLE, IND.—Bids are asked until July 5 for erecting a brick school building for Shelby township, Jefferson county. David Weatherford, Trustee, Barbersville.

INDIANAPOLIS, IND.—Kruse & Dewenter, Indianapolis, have been awarded the contract for heating and ventilating School No. 15 at $1,894, and School No. 51 at $2,928; the Peck-Williamson Heating & Ventilating Co., Cincinnati, O., received the contract for heating School No. 32 at $1,617, and School No. 38 at $621.

DETROIT, MICH.—The following bids were received by the supervising architect, Washington, D. C., June 7, for alterations and repairs to the old U. S. building in this city; all local bidders: W. H. Traves, $17,660, 110 days; Vinton Co., $16,400, 4 mos.; James Roach, $19,978, 4 mos.; Koenig Bros. Co., Ltd., $20,194, 4 mos.

DETROIT, MICH.—Bids are asked until June 20 for a heating and ventilating plant for the Duffield school building. L. H. Chamberlain, Secy. Bd. of Education.

GRAND RAPIDS, MICH.—Plans have been adopted by the Grand Rapids & Indiana Ry. Co., according to reports, for a new station for this city, to cost $75,000. D. H. Burnham & Co., Archs., Chicago.

PEORIA, ILL.—C. L. Strobel is stated to have received the contract for erecting a new train shed for the Union passenger station at Peoria. V. Jobst & Son have the contract for the construction of the main building, the entire structure involving an expenditure of $80,000.

PARNELL, IA.—Bids are asked until June 30 for erecting a school building in this city. M. Hannon, Secy.; W. R. Parsons & Son Co., Archs., Des Moines, Ia.

ROCKWELL CITY, IA.—Bids are asked until June 20 for erecting a brick and stone bank and store building at Rockwell City. E. A. Richards, Pres. First National Bank; J. H. Allbright, Arch., Fort Dodge, Ia.

DEPERE, WIS.—Bids are asked until June 20 for erecting a new high school building in this city. C. G. Wilcox, Pres. Bd.; Van Ryn & De Gelleke, Archs., Milwaukee.

LEROY, MINN.—Bids are asked until July 6 for erecting an 8-room brick school building for Leroy school district. C. I. Roy, Pres. Bd. of Education; F. W. Kinney, Arch., Austin, Minn.

PIPESTONE, MINN.—Pass & Schippel, Mankato, Minn., have been selected to prepare plans for a $50,000 court house for Pipestone county.

STEWARTVILLE, MINN.—Bids are asked until June 26 for erecting and for heating and ventilating a 10-room school building at this place. Herbert Robbins, Pres. Bd. of Education; C. G. Maybury & Son, Archs., Winona, Minn.

WALKER, MINN.—Bids are asked by the office of Indian affairs, Washington, D. C., until June 30, for constructing a dormitory, employees' quarters and a water and sewer system of the Leech Lake School. Capt. W. A. Mercer, U. S. Indian Agent, Walker.

OMAHA, NEB.—Rocheford & Gould were awarded the contract, June 5, for constructing the new Cass school building, at $41,867.

OMAHA, NEB.—Bids are asked until June 19 for the steam heating and plumbing of the new Cass school building at 15th and Cass Sts.; also for constructing the Pacific school building, at 12th and Pacific Sts. J. M. Gillan, Secy. Bd. of Education.

CLEAR LAKE, S. DAK.—Bids are asked by the commissioners of Deuel county until July 7 for erecting a jail and sheriff's residence. E. N. Flanders, Audr.

WAHPETON, N. DAK.—Bids are asked until June 24 for erecting a brick business building for Leech & Gamble of this city. Schuler Bros., Archs, Wahpeton.

DENVER, COLO.—Bids are asked until July 15 for iron stairways, bronze metal doors, marble work, tile floors, glass windows, etc., for the Colorado State Capitol, as stated in our advertising columns. Herman Lueders, Secy. Bd. of Capitol Mgrs.

BREMERTON, WASH.—We are informed that the following bids were received by the bureau of yards and docks, Washington, D. C., June 10, for constructing a steam engineering shop and boiler house at the Puget Sound Naval Station, Bremerton: D. McRae & Co., Seattle, Wash., $67,686; Cal. Bridge & Const. Co., Oakland, Cal., $68,440; W. H. Wickersham, San Francisco, Cal., $59,900; Penn Bridge Co., Beaver Falls, Pa., $64,300; F. H. Goss, Tacoma, Wash., $63,283.

SPOKANE, WASH.—Ziegler & Dalton, Junction City, Kan., was the lowest bidder for erecting a two-company barracks, etc., at the new Spokane army post at $52,000.

TORONTO, ONT.—Bids are asked until June 21 for erecting an addition to the College St. fire hall. John Shaw, Mayor.

CARACAS, VENEZUELA.—Wilson Bros. & Co., Archs. and Engrs., Philadelphia, Pa., have been selected by the Venezuelan government to perfect plans and specifications for an armory and barracks to be erected near this city; cost, $200,000. Albert Smith, Minister Pub. Wks.

WATER-WORKS.

PASCOAG, R. I.—The Pascoag Light & Water Co. has been incorporated, with a capital stock of $125,000, by J. T. Fiske, Jr., F. W. Seibert, Burrillville, R. I.

BALLSTON SPA, N. Y.—F. J. Tempe, Schenectady, N. Y., and H. M. Geer, Ballston Spa, are preparing plans for improving the works and for a standpipe; estimated cost, $50,000.

CLYDE, N. Y.—An election will be held June 22 to vote on the question of purchasing the works of the Clyde Water Supply Co. The five-year contract expires in October. The plant is said to have cost about $30,000.

DUNKIRK, N. Y.—L. E. Thompson, Supt., has been directed to secure prices for water meters to be used to measure the water used by the railway companies, etc.

FARMER, N. Y.—E. L. Bailey, Dundee, N. Y., is reported to have been granted a franchise for works.

FISHKILL LANDING, N. Y.—Bids are asked until June 21 for erecting a pumping engine of 100,000 gallons capacity per 10 hours, a standpipe 15 ft. in diameter, and 85 ft. high, and for furnishing and laying 3,500 ft. of 8-in. water pipe for the Matteawan State Hospital. H. E. Allison, Medical Supt., Fishkill Landing.

PENN YAN, N. Y.—Geo. H. Lapman and others are reported as interested in proposed improvements to the works for this place.

SAVONA, N. Y.—This place has voted to issue $15,000 in bonds for works. J. F. Witmer, Engr., Ellicott Square, Buffalo, N. Y.; T. C. Wall, Clk.

SCHENECTADY, N. Y.—Bids are asked until July 6 for the purchase of $30,000 of 4% water and sewer bonds. J. H. Bernardi, Cy. Treas.

ORANGE, N. J.—The council has voted down the resolutions of the water committee awarding the contracts for building a pumping station and reservoir at Campbell's Pond. The street lighting committee, to whom the whole matter had been referred, has had the following resolutions adopted: First. That the pumping machinery should be situated at the pumping station in the valley section of the city. Second. That the engineer prepare plans for an electric pump to increase the pressure throughout the city. Third. That an associate engineer be appointed to assist the city engineer in the work.

BEAVER FALLS, PA.—The Beaver Valley Water Co. has been organized, and will apply for a charter June 28.

CONNEAUTVILLE, PA.—Estimates for completing the proposed works have been submitted; cost, $10,500.

DANVILLE, PA.—The Wallenpapeck Water Co. was incorporated June 9, with a capital stock of $1,000, by Isaac X. Grier, Rufus K. Polk and others, of Danville.

DUQUESNE, PA.—A. D. Foster, McKeesport, Pa., has been awarded the contract for drilling four new wells for an increased water supply.

FORD CITY, PA.—It is stated that this place has voted to purchase the works of the company.

GIRARD, PA.—This place has voted to issue $23,000 for a combined water-works and electric plant. It is said that bids for the work will soon be wanted. J. F. Witmer, Engr., Buffalo, N. Y.; C. J. Reade, Pres. Council.

NEW CASTLE, PA.—An election will be held to vote on the question of building works and an electric plant, according to reports.

PITTSBURG, PA.—The board of public works has asked for $700,000 for laying additional water mains. E. M. Bigelow, Dir. Dept. of Pub. Wks.

PHILADELPHIA, PA.—Bids are asked until June 24 for drilling an artesian well and for installing a pump at the League Island navy yard. M. T. Endicott, Ch. Bureau Yards and Docks, Washington.

TAKOMA PARK, D. C.—An election will be held July 3 to vote on the question of building works and a sewerage system, to cost about $40,000. Address Mayor O'Driscoll, Geo. A. Warren and J. B. Kinnear.

CRISFIELD, MD.—This place voted June 7 to issue $15,000 in bonds for works. Address Commissioners Jno. P. Tawes and E. R. Gandy.

ALEXANDRIA, VA.—Frank Grimes, it is stated, will organize a company to put in works.

CHAPEL HILL, N. C.—Bids are asked until June 30 for furnishing the materials and for constructing works, as stated in our advertising columns. E. A. Alderman, Pres. University of N. C.

GASTONIA, N. C.—An election will be held Aug. 1 to vote on the question of issuing bonds for works and an electric plant.

TARBORO, N. C.—Bids are asked until June 26 for sinking an 8-in. artesian well, as stated in our advertising columns. J. A. Weddell, Secy.

GAFFNEY, S. C.—Geo. O. Tenney, Atlanta, Ga., is reported to have been awarded the contract for building works, at about $25,000.

ATLANTA, GA.—The water board will ask the council for $40,000 for extending the water mains.

ELBERTON, GA.—The question of building works is again being considered. The works will have a 100,000-gallon steel tank on a tower about 100 ft. high, about 9,000 ft. of mains, etc. Address F. W. Auld.

ROME, GA.—Bids are asked until July 15 for enlarging the reservoir to hold 1,000,000 additional gallons, and for installing a filter plant of 1,500,000 gallons for the works. C. E. McLin, Chn. Com.

WASHINGTON, GA.—It is stated that the city will improve the works and the electric light plant, recently purchased by the city. Harry Ludlow, Cy. Engr.

MONTGOMERY, ALA.—Geo. A. Ellis, Consult. Engr., informs us that bids for enlarging and extending the air-lift pumping plant were received June 5 from the Bacon Air Lift Co., 100 Broadway, New York, at $18,265, and from the Pneumatic Engineering Co., 100 Broadway, New York, at $24,603.

CINCINNATI, O.—Bids are asked until July 3 for furnishing special castings for the settling reservoirs, and for the intake pump-pit and valve chambers of the Eastern Pumping Station, California, O. Aug. Herrmann, Pres. Bd. Trustees.

MIAMSBURG, O.—The question of building works and a sewerage system is being considered.

LAPORTE, IND.—The council is reported to have directed the committee to proceed immediately with the construction of the new works, to cost about $70,000. Further information can be found in our issues of March 9 and 16 and April 13. C. F. Leffman, Chn. Com.

TERRE HAUTE, IND.—The Terre Haute Water Works Co. will spend, it is reported, about $300,000 for extending its mains and making other improvements.

DURAND, MICH.—This place voted June 5 to issue $30,000 in bonds for works. W. H. Putnam, Clk.

GRAND MARAIS, MICH.—An election will probably soon be held to vote on the question of issuing $5,000 in bonds for improving the water supply. Dr. Anderson, Chn. Com.; Wm. Leighton, Secy.

LUDINGTON, MICH.—We are informed that Benezette Williams, 153 La Salle St., Chicago; A. M. Patitz, Pabst Bldg., Milwaukee, Wis., and Geo. E. Evans, 95 Milk St., Boston, Mass., have been appointed a commission of appraisement by the city and the Ludington Water Co. to fix the price the city must pay for the works, provided the city votes to purchase. The franchise has 22 years more to run, but the city has the privilege of purchasing every five years, but at present the time clause has been waived.

WEST BAY CITY, MICH.—Bids are asked until June 26 for furnishing the materials and for reconstructing the works, as described in our advertising columns. J. D. Cook, Con. Engr., Toledo; J. H. Bloomshield, Cy. Engr.

CHICAGO, ILL.—Bids are asked until June 20 for removing the present superstructure and erecting a new one for the Lake View crib, situated about six miles north of the mouth of the Chicago River. L. E. McGann, Comr.

MURPHYSBORO, ILL.—We are informed that the following bids were received June 9 for furnishing the material and for constructing the water tower at the works, as advertised in Engineering News; (1) being for the foundation; (2) for the iron work, and (3) for the casing: The Standard Boiler & Bridge Co., Belaire, O., (1) $970; (2) $6,869, awarded both contracts; Central Bridge Co., St. Louis, Mo., (1) $1,070; (2) $9,000; Koken Iron Works, (2) $12,215; Russell & Drake, Murphysboro, (3) $1,590, awarded contract; Geo. Kennedy, Jr., Murphysboro, $1,000. Edward Flad, Consult. Engr., St. Louis.

VANDALIA, ILL.—The council has voted to extend the water mains, at a cost of about $8,500.

WEST HAMMOND, ILL.—Bids are asked until June 21 for furnishing and laying 4,000 ft. of 4-in. cast-iron water pipe, with six fire hydrants, two 4-in. valves, seven 4-in. tees, etc. M. H. Finneran, Village Clk., P. O. Hammond, Ind.

MUSCATINE, IA.—The Muscatine Water Works Co. has submitted a proposition to the council asking for an extension of its franchise for 25 years. If the extension is granted the company will build a new pumping station above Mad Creek and construct settling basins; estimated cost, about $100,000.

NORA SPRINGS, IA.—Bids are asked until June 20 for constructing works, to cost about $6,000. S. G. Blythe, Mayor; Jackson & Moss, Engrs., Des Moines.

VALLEY JUNCTION, IA.—The Valley Junction Water & Light Co. has been incorporated by J. H. Brown and B. O. Mayer, of the Seckner Contracting Co., The Rookery, Chicago, with a capital stock of $35,000.

BELGRADE, MINN.—Bids are asked until June 30 for constructing works and an electric plant. C. Borgerding, Pres.; F. W. Lenz, Recdr.

GIBBON, MINN.—Bids are asked until June 24 for constructing three cisterns for fire purposes. Peter Spiecker, Recdr.

WALKER, MINN.—Bids are asked until June 30 for furnishing the materials and for constructing works and a sewer at the Leech Indian school. W. A. Mercer, Acting Indian Agent, Walker; A. C. Toner, Acting Indian Comr., Dept. of Interior, Washington, D. C.

NORTH BEND, NEB.—The Fremont Foundry & Machine Co. and Fairbanks, Moss & Co. have been awarded the contracts for the engine and pump for the works.

WEST POINT, NEB.—Bids are asked until June 28 for constructing a 228,000-gallon reservoir. J. C. Elliott, Cy Clk.; Andrew Rosewater, Engr., Omaha.

MARYVILLE, MO.—The City Water-Works Co. has been incorporated, with a capital stock of $180,000. This is a reorganization of the Maryville Water Co.

KANSAS CITY, MO.—Bids are asked until July 7 for furnishing 6,000 ft. of 30-in. cast-iron pipe and specials and valves, as stated in our advertising columns. D. W. Longwell, Supt. Water-Wks.; R. M. Godfrey, Secy.

AUSTIN, TEX.—Bids are asked until June 17 for sinking an artesian well, to a probable depth of 2,000 ft., for a water supply for the state asylum. I. B. Cochran, Pres.

REDLANDS, CAL.—The South Mountain Water Co. has been organized, with a capital stock of $100,000, by O. A. Worthing, Karl C. Walls and Chas. Putnam.

GENESEE, IDAHO.—Surveys for works are being made, according to reports. Population (1890), 300.

WATFORD, ONT.—It is stated that this place wants to build new works. Population (1890), 1,300.

NICOLAIEV, RUSSIA.—Thos. E. Heenan, U. S. Consul, Odessa, Russia, reports that bids will be wanted by the municipal council within five months for constructing works for this place. There will be required galleries of 1,949,000 gallons capacity a day, 329,000 ft. of pipe, a water tower, pumping station, fountains, etc. V. A. Datsenko, Mayor.

IRRIGATION.

ST. PAUL, MINN.—Reports state that the White Bear Improvement Society has decided to expend $3,500 in building a flume from Pine Tree Lake to White Bear Lake to catch the overflow of that and adjoining lakes.

BEAUMONT, TEX.—It is stated that surveyors are doing preliminary work for a pumping station on Turtle Bayou, for the Chambers County Rice Irrigating Canal Co., lately organized.

SALINAS, CAL.—M. E. Gonzales, of San Francisco, proposes to construct a canal about 20 miles long for the purpose of irrigating the San Vincente, Rincon de la Punta, Del Monte, Gonzales, and several other ranches, and for supplying Chualar, Gonzales and other places along the line of the canal with water.

SANTA FE, N. MEX.—It is stated that the Geological Survey has requested U. S. Engineer P. E. Harroun to make a general reconnoissance of the northern part of the territory for the location of reservoir sites.

SEWERAGE.

FRAMINGHAM, MASS.—The commissioners propose to extend the system at a cost of about $30,000.

NORTHAMPTON, MASS.—Henry W. Warner, Leeds, Mass., has been awarded the contract for building 8-in. pipe sewers in eight streets.

SOUTHBRIDGE, MASS.—We are informed by the sewer commissioners that the town will build seven or eight acres of filtration beds, and that bids will soon be asked. Arthur C. Moore, Engr.

BRIDGEPORT, CONN.—Bids are asked until June 19 for constructing eleven small receiving basins, reconstructing nine catch basins and bringing to grade and covering six manholes with iron covers on State St.; also for furnishing six Greeyer noiseless manhole covers; bond, $1,000. A. E. Lavery, Clk.

ALBANY, N. Y.—Bids are asked until June 16 for laying a pipe sewer and house drain and for building receiving basins. Thos. J. Lanahan, Clk.

BROOKLYN, N. Y.—The 23d Ward Taxpayers' Association is discussing the question of urging the city to build a system in the 29th Ward.

BUFFALO, N. Y.—Bids are asked until June 23 for constructing 18 to 12-in. pipe sewers in two streets. R. G. Parsons, Secy. Bd. Pub. Wks.

LARCHMONT, N. Y.—Bids are asked until July 1 for constructing sewers, as described in our advertising columns. L. S. Knevals, Village Clk.

LITTLE FALLS, N. Y.—Bids are asked by the board of public works until June 20 for constructing 24 to 8-in. pipe sewers in certain streets.

LOCKPORT, N. Y.—The board of supervisors of the county is considering the question of purchasing part of the Carson farm for the drainage of the property at the county almshouse. Wm. H. Lanighan, S. W. Potter and Wm. Shaw are on the committee.

NEW YORK, N. Y.—Bids are asked by the department of public charities, foot of E. 26th St., until June 19 for building pipe sewers in the grounds of Bellevue Hospital, and by the department of sewers, 21 Park Row, until June 21 for constructing sewers in several streets.

JERSEY CITY, N. J.—The street and water board estimates that it will require $417,000 for work in its various departments; of this amount $92,000 will be wanted for rebuilding certain sewers.

LEBANON, PA.—The city has appointed James H. Ewertes, 100 William St., New York, as consulting engineer, and Thomas R. Crowell, of Lebanon, as designing engineer, in connection with the designing of a complete system. Geo. W. Hayes, Cy. Engr.

PITTSBURG, PA.—Bids are asked until June 24 for laying 15, 18 and 24-in. pipe sewers in a number of streets. Edward M. Bigelow, Dir. Pub. Wks.

BALTIMORE, MD.—The second report of the sewerage commission has been submitted to the council. The commission has reported that the crude sewage be discharged into the Chesepeake Bay, with possible future modification, or that it be filtered on land in Anne Arundel county. The cost of the first plan, which is the one recommended by the commission, is estimated at $3,202,846 to install and $5,860,331 at completion for the needs of 1,000,000 people. The cost of the second plan is estimated at $3,188,118 to install and $9,860,241 at completion for the needs of 1,000,000 people. The commission recommends that the system be constructed by the city and not by a private corporation. No other drains or sewers should be constructed, the report also states, until a general system has been adopted. Mayor Malster has sent a note to the council, urging it to begin the work as soon as possible. Mendes Cohen, 825 North Charles St.; F. H. Hambleton, 8 South St., and E. L. Bartlett, civil engineers, compose the commission.

NEWPORT NEWS, VA.—The Hampton Roads Villa Co. has been incorporated to improve 10,000 acres of land. There will be built sewers, streets, an electric railway, etc. Capital stock, $50,000.

SALISBURY, N. C.—The council proposes to build a system, and do considerable new street work, etc., according to reports.

JACKSON, MISS.—Plans for a system of house and storm sewers are being prepared by W. G. Kirkpatrick, Cy. Engr.

MEMPHIS, TENN.—The council will probably soon take immediate steps looking to the construction of the proposed new sewers. Address Mayor Williams, Councilmen Walsh and Carrington.

LEXINGTON, MO.—The question of issuing bonds for building a new system, it is stated, is being considered. C. F. Brower and Alderman Allen may be addressed.

CINCINNATI, O.—Reports state that the following bids for constructing sewers in Cherry, Turrill and Delaney streets have been rejected, and that the work will be readvertised: Van Sandt & Meeds, $13,029; Henry Frank, $13,553; James Strack, $13,732.

CLEVELAND, O.—Bids are asked until June 21 for constructing a sewer in Woodlawn Ave. W. P. Rice, Jr., Dir. Pub. Wks.—Efforts are being made to have the city build an intercepting sewer in the East End; estimated cost, $500,000. The question of building other important sewers is being considered.

LAKEWOOD, O.—An election will be held June 29 to vote upon the issuance of $150,000 in bonds for constructing a system.

MAUMEE, O.—Riggs & Sherman, Toledo, O., have been engaged to prepare plans for a system. John Smith, Mayor.

WELLSVILLE, O.—Bids are asked until about July 15 for constructing a system, to cost about $75,000. Riggs & Sherman, Engrs., The Nasby, Toledo, O.; D. A. Davidson, Cy. Clk.

AUBURN, IND.—C. H. Bodette & Co., Toledo, O., are reported to have been awarded the contract for a system, at $29,979. After the system is built the question of paving will be considered.

NORMAL, IND.—The question of this city building a system is being considered.

UNION CITY, IND.—Bids are asked until June 19 for constructing a sewer. G. A. Rosenbush, Cy. Clk.

WABASH, IND.—Bids are asked until June 26 for constructing sewers in Ferry St. Fremont McLees, Cy. Clk.

MARSHALL, MICH.—Bids are asked until June 30 for constructing main and lateral sewers, as stated in our advertising columns. P. A. Courtright, Cy. Engr.

BARABOO, WIS.—Bids are asked until June 22 for the construction of 2,857 ft. of 6, 8 and 12-in. pipe sewers, with seven catchbasins, seven manholes and three lampholes. W. G. Kirchoffer, Cy. Engr.

LA CROSSE, WIS.—The committee has recommended the construction of certain sewers, at a cost of $25,000. Alderman Thompson, City Engineer Powell and Mayor Anderson may be addressed.

WAUKESHA, WIS.—Bids are asked by the board of public works until June 23 for constructing pipe sewers in West Ave. and Huron St.

CLINTON, IA.—City Engineer Chase is making surveys for improving the system.

TOPEKA, KAN.—Black & Laird, of Des Moines, Ia., have been awarded the contract, at $43,823, for constructing the North Topeka sewer. It is said that work will be begun July 1.

WALLACE, IDAHO.—Bids are asked until July 1 for the construction of the proposed system for this city, to cost about $18,000.

LONDON, ONT.—Willis Chipman, Toronto, Ont., has submitted recommendations for a sewage disposal farm, to cost $28,000. Address Alderman McPhillips, Chn. Com.; Mayor Wilson, or A. O. Graydon, Cy. Engr.

GARBAGE DISPOSAL—STREET CLEANING

PROVIDENCE, R. I.—Bids are asked until June 22 for removing night soil for one year, from July 1. A. T. Mansfield, Supt. Pub. Bldgs.

BUFFALO, N. Y.—Bids are asked until June 22 for collecting and removing the garbage, dirt, ashes, etc., from July 1 to Dec. 10, 1905. R. C. Parsons, Secy. Bd.

ELMHURST (L. I.), N. Y.—Wm. C. Ward has been awarded the contract for removing the ashes and garbage.

ROCHESTER, N. Y.—Commissioner Whalen, of the executive board, is investigating street sweepers.

UTICA, N. Y.—The following bids were received May 19 for cleaning the paved streets: Combination of machinery and manual labor, Warren-Scharf Asphalt Paving Co., one year, $15,144; two years, $14,240; five years, $13,390. Machinery, W. T. Donneley, one year, $15,407; two years, $13,390; five years, $11,010. M. A. McDermott, one year, $13,323; two years, $13,323; five years, $10,118. Geo. E. Davis, one year, $13,140; two years, $12,668; five years, $11,222. Manual labor, W. T. Donneley, one year, $15,613; two years, $15,613; five years, $15,238. Daniel L. Mott, one year, $24,104; two years, $23,415; five years, $20,709. Jos. N. Corrigan, one year, $15,992; two years, $15,400; five years, $15,208. Jas. E. Martin & Co., one year, $17,010; two years, $15,841; five years, $15,049. Geo. E. Davis, one year, $15,221; two years, $14,744; five years, $14,230. M. A. McDermott, one year, $20,685; two years, $20,309; five years, $17,620. The contract was let to G. E. Davis for one year for manual labor. J. A. Cantwell, Cy. Clk.

ALLEGHENY, PA.—Bids are asked until June 20 for removing dead animals, offal, etc., from the city. J. R. Murphy, Dir. Dept. Pub. Safety.

LANCASTER, PA.—Bids are asked until June 28 for erecting a garbage disposal plant of about 50 tons capacity a day. E. S. Smelz, Cy. Clk.

PITTSBURG, PA.—Chas. Flinn has been awarded the contract for removing the garbage for one year, at $93,890 a year.

EAST LIVERPOOL, O.—Bids are asked until July 7 for constructing a garbage disposal plant, and also for the disposition of the garbage of the city, as stated in our advertising columns. Root. Bussner, Clk. Bd. of Health.

SAN DIEGO, CAL.—City Engineer Capps has submitted estimates for a garbage-carrying boat to cost $3,300.

STREETS AND ROADS

BOSTON, MASS.—Bids are asked by the street department until June 20 for constructing macadam roads in Thane, Spencer and Shirley Sts. Benj. W. Wells, Supt.

HAVERHILL, MASS.—It is reported that the order was passed June 8 appropriating $25,100 for macadam roads.

ALBANY, N. Y.—Bids are asked until June 19 for brick paving on Deleware and Catharine Sts. Thos. J. Lanahan, Clk.——The only bids received for the paving of Morton St. were from T. Henry Dumary, at $50,991, and Frank Pidgeon, at $52,517.

BROOKLYN, N. Y.—Reports state that resolutions have been adopted for repaving parts of Bedford Ave., at a cost of $85,000.

COHOES, N. Y.—We are informed that it has been decided to pave Congress St. with vitrified brick, and that Engineer Hayes has been directed to prepare plans and specifications for the work.

CORTLAND, N. Y.—Bids are asked until June 26 for 13,550 sq. yds. of asphalt paving in Tompkin and Lincoln Sts., as stated in our advertising columns. F. Hatch, Village Clk.

EAST AURORA, N. Y.—Press reports state that the paving of West Main St. at an expense of $31,000 is contemplated.

NORWICH, N. Y.—Bids are asked by the board of trustees until June 28 for paving East Main St., from its intersection with Broad St. to the east line of Adelaide St., with vitrified paving brick; about 10,500 sq. yds., as stated in our advertising columns. J. B. Turner, Pres.

ONONDAGA, N. Y.—Bids are asked until June 20 for improving Cortland St. Edw. A. Bond, State Engr. and Surveyor, Albany.

ROCHESTER, N. Y.—Bids are asked until June 15 for asphalt paving on Washington, Jefferson and Olean Sts., and for asphalt and block stone paving in car tracks on Emerson St. and Hudson Ave.; and until June 21 for asphalt paving in Sherman, Frost, Jay and Lawrence Sts., and for brick and block stone paving in car tracks on Jefferson and Monroe Aves. Chas. M. Beattie, Clk.——The following bids were received June 7 for Elizabeth St. asphalt paving: Warren-Scharf Asphalt Paving Co., $7,358; Rochester Vulcanite Pavement Co., $7,972; Rock Asphalt Pavement Co., $7,456. Munroe Ave., Medina block pavement: F. A. Brotsch, $41,308; Lauer & Hagaman, $42,136; William Fuller, $43,301; Whitmore, Rauber & Vicinus, $44,693; Rock Asphalt Pavement Co., $44,811; Brayer & Albaugh, $44,834; W. H. Jones & Sons, $45,039; H. N. Cowles, $46,704.

ROME, N. Y.—F. A. Coleman, Cy. Engr., informs us that 26,000 sq. yds. of brick paving, at a cost of $56,000, is proposed.

SALAMANCA, N. Y.—Bids are asked by the board of trustees until June 22 for about 20,600 sq. yds. of brick street paving, as stated in our advertising columns. F. E. Fenton, Village Clk.; F. W. Dalrymple, Engr., Hornellsville, N. Y.

SYRACUSE, N. Y.—Bids are asked until June 20 for the improvement of James St. Edward A. Bond, State Engr. and Surveyor, Albany.——It is stated that the city clerk has been directed to advertise for asphalt or brick paving in nine streets.

UTICA, N. Y.—Bids are asked until June 16 for the construction of an asphalt pavement on Hickory St. J. A. Cantwell, Cy. Clk.

WATERFORD, N. Y.—Bids for about 8,000 yds. of brick pavement will be asked for by the paving commission as soon as plans and specifications are completed by C. E. Hicks.

ELIZABETH, N. J.—The following contracts for paving were awarded June 8: Front St., to Louis Quien, at $9,029; South Park St., to Michael Fitzgerald, at $7,802; and Sixth St., to Michael Fitzgerald, at $9,168.——Ordinances were passed for brick paving in seven streets.

LONG BRANCH, N. J.—Bids are asked by the board of chosen freeholders until June 24 for the construction of a stone road, three miles long, from Red Bank to Eatontown; for the construction of two gravel roads on the Navesink and Hillside Roads, and for the construction of a gravel road in the township of Howell, as stated in our advertising columns. John Guire, Director.

MADISON, N. J.—Bids are asked by the board of freeholders until June 22 for the construction of a macadam road in two townships. Merritt B. Lum, Dir.

PATERSON, N. J.—Bids are asked by the department of streets and sewers until June 16 for grading, curbing and guttering in ten streets. Thos. McLean, Comr.

MAHONEY CITY, PA.—Bids are asked by the street committee until June 16 for paving Catawissa St. with vitrified brick; about 3,000 sq. yds. T. F. Patterson, Chn.

PITTSBURG, PA.—Reports state that the following contracts for street work have been awarded: For grading, paving and curbing East St., to W. E. Hawley, at $184,611; grading Frederick St., to the Northside Land & Coal Co., at $1,351.

PITTSBURG, PA.—Bids are asked until June 24 for grading, paving and curbing in seven streets. E. M. Bigelow, Dir. Pub. Wks.

VERONA, PA.—Bids are asked until June 25 for grading and brick paving South Ave. H. E. Kier, Engr.

ATLANTA, GA.—Press reports state that $5,000 has been set aside for improvements on Edgewood Ave.

BILOXI, MISS.—Bids are asked until June 20 for paving streets with vitrified brick. O. G. Swetman, Cy. Clk.

MAYNARDSVILLE, TENN.—Bids are asked by the county court until July 3 for the construction of 25 miles of turnpike road, according to reports.

LOUISVILLE, KY.—It is stated that the county surveyor has been authorized to advertise for bids for constructing a macadam road from the city limits on the Westport Road to Fry's Hill.——It has been decided to appropriate $45,000 for good roads throughout the county.

CLEVELAND, O.—Bids are asked by the board of county commissioners until July 1 for planking and draining about 6½ miles of the North Woodland Road, in Newburg Hamlet, East Cleveland, Warrensville and Orange Townships. Julius C. Dorn, Clk.

FREMONT, O.—Bids are asked by the improvement committee until June 16 for paving with fire brick, Napoleon St., from Wayne St. to the Lake Erie & Western R. R. track, according to reports. E. Schwartz, Chn.

HAMILTON, O.—Bids are asked until June 23 for the improvement of North Second St., by paving with sheet asphalt, block asphalt or vitrified brick, according to reports. R. S. Woodruff, Cy. Clk.

MARION, O.—Reports state that the following bids were received June 7 for the paving of Oak St.: E. S. Ault, Buckeye block, Portland cement filler, $4,269; Hofstetter Bros., Fultonham block, Murphy grount filler, $4,060 (accepted); Brady & O'Connell, Buckeye block, Murphy grout or Portland cement fillers, $4,082; Kelly Co., Logan block, coal tar filler, $4,142.

TOLEDO, O.—Bids are asked until July 3 for block pavement in four streets. Wm. O. Hoist, Cy. Clk.

WAUSEON, O.—Riggs & Sherman, The Nasby, Toledo, O., are preparing plans for about 20,000 yds. of brick paving; contract will be awarded about July 15.

WOOSTER, O.—Bids are asked until July 1 for grading, curbing and paving Spink St. W. T. Peckinpaugh, Clk.

VERNON, IND.—Bids are asked until June 21 for the construction of about 19 miles of pike roads in Campbell and Bigger Townships. James Renie, Audr.

NORMAL CITY, IND.—Bids are asked by the board of trustees until June 20 for the improvement of Martin Ave., Riverside to Jackson Ave. E. J. Tomlinson, Clk.

CHICAGO, ILL.—Bids are asked until June 19 for curbing Gross Park with granite concrete. L. E. McGann, Comr. Pub. Wks.

GALESBURG, ILL.—Bids are asked by the board of local improvements until June 19 for the construction of a double-course brick pavement on Chambers St. Fletcher Carney, Pres.

GLENCOE, ILL.—We are informed that the Chicago & Milwaukee Electric Ry., Stock Exchange Bldg., Chicago, is receiving bids for macadam paving, at an estimated cost of $30,000; plans were prepared by Frank A. Windes, Village Engr. of Glencoe.

BARABOO, WIS.—W. G. Kirchoffer, Cy. Engr., informs us that it is proposed to macadamize two blocks on Oak St. with granite, to build a foundation for a bridge pier and to construct 1,250 ft. of stone gutters; plans may be seen after June 22.

MERRILL, WIS.—Bids are asked until June 23 for the construction of a highway. B. J. Lambert, Cy. Clk.

ST. PAUL, MINN.—Reports state that the following bids were received for paving West Tenth St.: Fielding & Shepley, $4,200 (accepted); Canney & Howe, $4,670.

DALLAS, TEX.—Bids are asked until June 27 for paving 11,400 sq. yds. on Elm St., according to reports. I. A. Moore, Cy. Secy.

BLOOMFIELD, MO.—Bids are asked until June 24 for grading eight streets. J. G. Haydock, Cy. Clk.

KANSAS CITY, MO.—Bids are asked until June 17 for the construction of brick pavement in five streets, asphalt pavement in eleven streets; granitoid sidewalks in eleven streets, stone sidewalks in four streets, grading in seven streets, and brick sidewalks in three streets. Henry A. Wise, Cy. Engr.——Reports state that the following contracts have been awarded for paving: Asphalt paving in seven streets, to Barber Asphalt Paving Co., at $54,837; brick paving in Twenty-second St., to S. F. Schroeder, at $6,976; brick paving in alley, to Trestrail Paving Co., at $1,056; brick paving in Washington St., to A. R. Mense, $8,736.

TACOMA, WASH.—Reports state that a resolution has been passed for the paving of C St., South C St. and South 11th St.; estimated cost, $62,900.

REDWOOD, CAL.—Press reports state that it is proposed to build a road from Woodside to La Honda, across the Santa Cruz mountains, at an estimated cost of $120,000, for nine miles.

MANUFACTURING PLANTS.

BUFFALO, N. Y.—The 4-story brick building, occupied by the Potter Wall Paper Co., the Buffalo Belting Co., and others, was destroyed by fire June 5; estimated loss, $85,000.

NEW YORK, N. Y.—We are informed that the Hazelton Boiler Co., New York, has recently purchased a tract of land and will soon commence the erection of a large plant, with modern equipment, for the manufacture of its boilers, stacks, tanks, and other kinds of sheet-iron work, and general repairs to machinery.

NEW YORK, N. Y.—The New York Steel & Wire Co. is erecting a steel plant at Astoria, Long Island, to cost about $300,000. The Lewis Foundry & Machine Co., Pittsburg, will erect a 32-inch blooming mill to be run by a double cylinder reversing engine, 28 × 42 inches, and the Mossberg & Granville Mfg. Co. will build a rod mill, to be driven by a 1,400-HP. tandem compound engine from Russell & Co., Massillon, O. There will also be a 3,000-HP. boiler plant, the boilers being furnished by the Biglow Boiler Co., Hartford, Conn. E. G. Spilsbury, 45 Broadway, New York, is the engineer.

MARTINS CREEK, PA.—It is reported that D. K. Boyd and F. H. Lewis, Philadelphia, are preparing plans for a plant to be built here for the William Kreuse & Sons Concrete Co., Philadelphia.

BALTIMORE, MD.—Louis Yakel, proprietor of the Kohler Mfg. Co., is reported to have bought the St. John's Methodist Church property on Liberty St., between Lexington and Fayette Sts., for the purpose of erecting a 6-story factory thereon to cost about $40,000.

RICHMOND, VA.—John Schminker is reported to have been awarded the contract for erecting two factory buildings for the American Ether Co. J. B. Purcell, Pres.

HUNTSVILLE, ALA.—Reports state that a brick factory with a capacity of 100,000 bricks a day will be erected in this city by the Merrimack Mill Co.——Reports state that A. W. Nunking, representing the Merrimac Mfg. Co., Lowell, Mass., is arranging for the Building of the new southern plant at Brahan Spring.

SHEFFIELD, ALA.—It is reported that the Richmond Cotton Oil Co. is to erect a mill to cost $50,000. W. F. May & Co., Chattanooga, Tenn., have the contract.

NASHVILLE, TENN.—Reports state that the Southern Soda Works Co., recently organized with a capital of $600,000, is to erect a 5-story brick factory building. W. J. Cummins, Treas. and Gen. Mgr.

CLEVELAND, O.—The forging department of the Vulcanus Forging Co., Hamilton St., near Case Ave., was destroyed by fire May 31; estimated loss, $15,000; partially insured. A. G. Hathaway, Secy. and Treas.

CHICAGO, ILL.—Reports state that a paper mill will be erected at North Water St., to cost $1,000,000. John M. Shartle, Middletown, O., is said to be interested.

JOLIET, ILL.—It is reported that William Garrett has completed arrangements with the McKenna Steel Co. for the construction of a rod mill to cost about $600,000.

FORT DODGE, IA.—Reports state the Des Moines Mfg. & Supply Co. has been awarded the contract for the machinery for the new mill of the Fort Dodge Plaster Co.; estimated cost $30,000. Proudfoot & Bird, Archs., Des Moines, Ia.

GAS PLANTS.

MOUNT VERNON, N. Y.—Reports state that the trustees of Pelham Manor have granted a franchise to the Westchester Gas & Coke Co.

RICHMOND, VA.—Press reports state that the report of Superintendent Knowles states that the cost for the extension of the coal gas plant would amount to $55,000, while the cost for a new plant would be about $257,000.

LOUISVILLE, KY.—A contract has been let at $175,000 for the building of a new retort house for the Louisville Gas Co. A. H. Barrett, Des. Engr.

PORTSMOUTH, O.—It is stated that the works of the Portsmouth Gas & Electric Co. are to be rebuilt.

TOLEDO, O.—Press reports state that Kerlin Bros. have sold their Fostoria and Tiffin natural gas lines and plants to the Globe Window Glass Co. for $17,500.

MISHAWAKA, IND.—Hugh H. Hosford and A. G. Graham, of this city, Dr. F. L. Slocum and Chas. A. Powell, of Pittsburg, have organized a company for the manufacture of gas and electricity; capital, $100,000.

RACINE, WIS.—It is reported that the property, plant and franchise of the Racine Gaslight Co. have been purchased by Henry C. Payne, Frank G. Bigelow and E. G. Cowdry, for $200,000.

BURLINGTON, IA.—Reports state that the Davenport Gas & Light Co. will expend $40,000 in laying eight miles of new mains.

DAVENPORT, IA.—Press reports state that the Burlington Improvement Co. has decided to expend $40,000 in improvements, including the laying of eight miles of gas mains.

SALEM, ORE.—Bids are asked by the city recorder until June 20 for lighting the streets with gas and electricity for three or five years.

MISCELLANEOUS CONTRACTS.

DREDGING.—Boston, Mass.—Bids are asked by the Cambridge commission until June 15 for dredging in Charles River, near the temporary pile bridge.

DREDGING.—Goshen Creek, N. J.—Bids are asked until June 30 for dredging in Goshen Creek, N. J. Lieut.-Col. C. W. Raymond, U. S. Engrs., Philadelphia, Pa.

BREAKWATER.—Newport, R. I.—Bids are asked until July 10 for repairing breakwater at Block Island, as stated in our advertising columns. Maj. D. N. Lockwood.

RECREATION PIER.—Brooklyn, N. Y.—The contract for the completion of a recreation pier at the foot of North Second St. was let June 9 to W. G. Triest, New York, at $29,926.

LANTERNS.—Tompkinsville, N. Y.—Bids are asked until June 28 for furnishing three 4th order lanterns, as stated in our advertising columns. Lieut.-Col. D. P. Heap, U. S. Engrs.

SWAMP DRAINAGE.—Newark, N. J.—Reports state that the contract for the drainage of the swamp in Branch Brook Park has been awarded to James Seme, of Newark, at $50,000.

CHANNEL.—Cottage City, Mass.—Bids are asked by the board of harbor and land commissioners, Boston, until June 22 for channel at Cottage City, Mass., as stated in our advertising columns.

DREDGING.—Wilmington, Del.—Bids are asked until July 10 for dredging in Appoquinimink, Smyrna and Murderkill Rivers, as stated in our advertising columns. Wm. F. Smith, U. S. Agent.

REPAIRING DIKES.—Manasquan River, N. J.—Bids are asked until July 12 for constructing and repairing dikes in Manasquan River, N. J., as stated in our advertising columns. Col. J. W. Barlow, U. S. Engrs.

SWAMP DRAINAGE.—Wurtsboro, N. Y.—Reports state that the contract for draining the Bashas Kill swamp, lying between Wurtsboro and Westbrookville, has been let to Brummel, Kemp & Lane, Syracuse, at $3,780.

JETTY.—Buffalo, N. Y.—Bids are asked until July 12 for the construction of timber and concrete pier and timber crib jetty at Erie Harbor, Pa., as stated in our advertising columns. Major T. N. Symons, U. S. Engrs.

CENTRIFUGAL PUMPS.—Horten, Sweden.—Bids are asked by the Norwegian Government until June 19 for the delivery of two centrifugal pumps, with machinery, boilers, etc., for the emptying of the dry dock at Horten.

CULVERT.—Waukegan, Ill.—Bids are asked by the commissioners of highways of the town of Benton until July 1 for building a stone culvert over the ravine at Sykes Bridge, about 1½ miles south of Winthrop Harbor.

LUMBER, ETC.—New York, N. Y.—Bids are asked by the department of parks, Arsenal, Central Park, until June 22 for furnishing and delivering lumber and rubber hose in Central Park, and for repairs to Pelham Bridge in Pelham Bay Park, Borough of the Bronx.

EXCAVATION.—**Washington, D. C.—Bids are asked** until July 10 for excavating and boring on site of new building for government printing office, as stated in our advertising columns. Lieut. John S. Sewell, U. S. Engrs.

LEVEES.—**Memphis, Tenn.—Bids are asked until July 3** for constructing, enlarging and repairing levees in Upper and Lower St. Francis, White River and Upper Yazoo levy districts. Capt. E. E. Winslow, U. S. Engr.

DREDGING.—**Cleveland, O.—Bids are asked until June 30** for dredging in straight channel through Maumee River and bay, and for constructing a dike between turnout channels, Toledo Harbor, O., as stated in our advertising columns. Col. Jared A. Smith, U. S. Engrs.

BROKEN STONE.—**New York, N. Y.—Bids are asked** by the department of highways, 13 to 21 Park Row, New York, until June 27 for furnishing, delivering and distributing broken stone and screenings of trap rock or syenite along certain streets north and south of Richmond Turnpike. James P. Keating, Comr.

WALL—CHANNEL.—**Albany, N. Y.—Bids are asked** by the superintendent of public works until June 29 for building wall along the northeastern boundary of Washington's Headquarters, Newburgh, and for improving the channel of Newtown Creek, in the town of Horseheads, Chemung county, N. Y., as stated in our advertising columns. John N. Partridge, Supt. Pub. Wks.

DRY DOCK.—**Mare Island Navy Yard, Cal.**—We are informed that the following bids were received by Mordecai T. Endicott, Ch. Bureau Yards and Docks, Washington, D. C., for constructing a timber dry dock at the Mare Island navy yard, San Francisco, Cal.: Healy, Lebbitts & Co., San Francisco, $809,120; California B. & Const. Co., San Francisco, $766,330, 23 cts. conditionally for piles; Dundon Bridge & Const. Co., San Francisco, $837,376, $14,000 conditionally for boilers; Campbell & Pettus, San Francisco, $767,898; Butler-Ryan Co., St. Paul, Minn., $789,000, 25 cts. conditionally for piles; Atlantic, Gulf & Pacific Co., New York, N. Y., $729,000; Cascade Const. Co., Portland, Ore., $815,000, and Dennis Jordan, San Francisco, $697,579.

CONTRACT PRICES.

EXCAVATING, ETC.—**Boston, Mass.**—The following bids were received by the Metropolitan Water Board, Boston, June 9, for excavating soil, Sec. 6, and building easterly portion of North Dike, Wachusett reservoir; contract was awarded Nawn & Brock:

Bids Received at Boston, Mass., June 6, 1899, for Excavation, Etc.

Quantities.		N. P. Nawn and N. S. Brock, Boston.	Moulton & O'Mahoney, Boston.	Busch Bros., Buffalo.	Jere. J. McCarthy & Co., Boston.	Long, Little & Co., Leominster.	The United Co., New York.
Clearing and grubbing	850 acres...	$70.00					
Soil excavation from areas marked:							
A on Plan No. 1	800,000 cu. yds.	.26	.34	.33	.37	.39	.72
B " " "	1,100,000 " "	.31	.35	.37	.36	.40	.82
C " " "	1,350,000 " "	.35	.36	.43	.40¾	.47	.92
Earth excavation	55,000 " "	.18	.24	.20	.28	.30	.35
Gravel excavation	30,000 " "	.18	.24	.16	.25	.45	.40
Total		$1,096,300	$1,248,400	$1,322,550	$1,341,525	$1,484,500	$2,825,625

MACADAM PAVING.—**Roselle, N. J.**—G. A. Rawlins, Borough Clerk, informs us that the following bids were received May 19, 1899, for 9,000 sq. yds. of macadam paving on a 6-in. slag foundation, as advertised in Engineering News:

Bidder.	Excavation, a cu. yd.	6-in. pavement, a sq. yd.	Crosswalks a lin. ft.	Curbing, a lin. ft.
*J. W. Rehill, Somerville, N.J.	$0.24	$0.41	$0.90	$0.60
J. E. Hillpot, Bound Brook, N.J.	.295	.495	.79	.40
C. M. Meeker, Plainfield, N.J.	.29	.54	1.03	.40
David Harper, Newark, N. J.	.50	.70	1.00	.50
Wm. H. Welden, Rahway, N. J.	.30	.53	1.00	.25
P. Faughnan, Elizabeth, N. J.	.23	.57	.93	.31

*Awarded contract.

DREDGING.—**New Jersey.**—Col. J. W. Barlow, U. S. Engr., Army Bldg., New York, informs us that the following bids were received June 3, 1899, for dredging in various rivers and creeks in New Jersey, as advertised in Engineering News: (1) being for dredging in the Shrewsbury River, scow measurement; (1a) for prism measurement; (2) for dredging in Shoal Harbor and Compton Creek, scow measurement; (2a) prism measurement; (3) dredging in Matawan Creek, scow measurement; (4) dredging in Keyport Harbor, scow measurement: Newburg Dredging Co., Newburg, N. Y., (1) 31 cts.; (3) 29 cts.; (4) 16¾ cts.; Edgar M. Payn, Albany, N. Y., (1) 61 cts., (2) 65 cts.; Wm. H. Taylor, Jr., (3) 26 cts.; (4) 15½ cts.; Alonzo E. Smith, Islip, N. Y., (1) 35 cts.; (2) 65 cts.; International Contracting Co., New York, (1a), 35 cts.; (2) 45 cts.; R. G. Packard Co., New York, (1a) 27½ cts.; (2a) 59 cts. It has been recommended that the contracts be let to W. H. Taylor, Jr., for the work in Mattewan Creek and Keyport Harbor; to the International Contracting Co., for Shoal Harbor and Compton Creek, and to the R. G. Packard Co., for work in Shrewsbury River.

PORTLAND CEMENT.—**Portland, Me.—We are informed** that the following bids were received June 8, 1899, for furnishing the U. S. Engineers with 22,000 bbls. of Portland cement: Waldo Bros., Boston, $3.00 a bbl.; Thos. W. Carter, Boston, $2.35.

CRIB PIER, ETC.—**Racine, Wis.**—The following bids were received May 25 by Capt. J. G. Warren, U. S. Engr., Milwaukee, for constructing a crib pier, breakwater, removing old pier and dredging in the harbor at Racine, as advertised in Engineering News:

Bids Received at Racine, Wis., May 25, 1899, for the Construction of a Crib Pier and Other Work.

Quantities.		Andrew H. Green, Chicago.	Lydon & Drews, Co., Chicago.	Sam'l O. Dixon, Milwaukee.	Edwd. Gillen, Racine.	Robt. B. Rice, Muskegon.	Hausler & Lutz T. & Dock Co., Chicago.
Pier extension and breakwater:							
White pine timber, per M.	907,000 ft. B.M.	.....	$28.00	$27.00	$23.75	$22.50	$28.00
Douglas or Oregon fir		.....	50.00	.....	29.25	.....	30.00
Long-leaf yellow or Southern pine		.....	30.00	.....	27.50	.....	29.00
Norway pine timber		.....	28.00	.....	23.75	21.50	27.00
Hemlock timber	589,000 " "	.....	21.00	20.00	17.50	16.50	19.00
Pine plank	22,000 " "	.....	21.00	20.00	17.00	17.00	24.00
Stone	6,000 cords...	.....	6.50	6.25	6.00	5.50	7.50
Foundation and protection piles	156 each...	.....	10.00	12.00	9.50	10.00	9.00
Wrought iron drift bolts	116,000 lbs.	.....	.03	.03	.02¾	.03	.03½
" " screw bolts	6,000 "	.....	.04	.05	.03½	.03	.04
" " spikes	6,500 "	.....	.04	.04	.03¼	.03	.04
Removing old pier and dock	1,000 lin. ft..	$14,000	7,500	5,950	...	...	9,000
Stone, old pier and use in new work	200 cords...	4.75	4.25	3.50	...	...	4.00
Dredging	200,000 cu. yds.	.15	.12½	.088	...	...	.13½
Totals: Breakwater, 600 ft., pier extension, 300 ft.		$14,950	$82,767	$80,121	$73,316	$68,915	$88,079
Removal of 1,000 lin ft. old pier and dock		30,000	8,350	6,650	.....	.....	9,800
Dredging, 200,000 cu. yds.		.....	25,000	17,600	.....	.....	27,000

SUBWAY.—**Glencoe, Ill.**—The following bids were received June 6 for excavation of subway at Hazel Ave., as advertised in Engineering News; the work will be in medium clay soil; contract awarded Chas. M. Porter; Frank A. Windes, Village Engr.:

Bids Received at Glencoe, Ill., June 6, 1899, for Excavation of Subway.

Quantities.		James H. Roche, Chicago.	T. Cox Co., Chicago.	Dolese Bros., Chicago.	J. M. Healy, Chicago.	C. M. Porter, Ill.	Harding & Malloy, Wis.	Pat. Nelson, Lk. Side,	Racine,	Engineer's estimate.
18-in. sewer pipe, av. cut 8½ ft.	1,500 lin. ft..	$0.85	$1.15	$1.10	$0.83	$0.80	$0.75	.....	$1.50	
3 x 12 pine curb	500 " "	.15	.20	.20	.18	.15	.....	$0.23	.20	
Catchbasins	5 each...	30.00	30.00	25.00	30.00	22.00	20.00	...	20.00	
Manholes	4 " ...	25.00	28.00	20.00	25.00	20.00	20.00	...	20.00	
8-in. sewer pipe, av. cut. 5 ft.	40 lin. ft..	.50	.80	.40	.60	.40	.26	...	.30	
4-in. water pipe to be lowered	350 " "	.50	1.00	.50	.30	.20	...	.15	.20	
Excavation	7,200 cu. yds.	.70	.40	.30	.315	.25	...	.45	.20	
Total		$6,835	$5,340	$4,306	$3,982	$3,351	$1,315	$3,408	$3,952	

PARK WORK.—**Newark, N. J.**—We are informed that the following bids were received May 31, 1899, by the Essex County Park Commission for underdraining and grading the northern division of Branch Brook Park, as advertised in Engineering News; Howard J. Cole, Engr.-in-charge, 800 Broad St., Newark; the bid of D. C. Hanfield & Stratton, New York, was informal:

Quantities.		Clinton Stephens, Jr., New York.	Jas. Seme, Newark, N. J.	United Co., New York.
Earth excavation	100,000 cu. yds.	$0.60	$0.39	$0.33
Agricultural tile:				
2-in.	57,000 lin. ft..	.14	.11	.05¼
3-in.	8,000 " "	.15½	.14	.09¼
4-in.	1,500 " "	.20	.16	.10½
Vitrified pipe:				
8-in.	400 " "	.30	.28	.25
10-in.	1,800 " "	.32	.45	.28
4-in. c. i. pipe	450 " "	.35	.55	.80
Brick masonry	25 cu. yds.	8.00	8.50	9.50
Total		$71,074	$50,512	$41,592

BRICK PAVING.—**North Adams, Mass.**—The following bid from the Troy Public Works Co., Utica, N. Y., was received June 2, 1899, for brick paving in Union St.: Paving with cement grouting, Metropolitan brick blocks, $2.16; McMahon-Porter brick blocks, $2.04; McMahon-Porter wire cut brick, $1.91; Syracuse brick, $2.05. Paving with pitch grouting, Metropolitan blocks, $2.26; Porter blocks, $2.14; Porter wire cut bricks, $2.01; Syracuse brick, $2.15. Setting curbing, 20 cts. a lin. ft. There will be 7,457 yds. of paving on 6-in. concrete, and 1,760 ft. of curbing. The contract was let on Porter block.

BRICK PAVING.—**Scottdale, Pa.**—E. L. Rutherford, Secy. Council, informs us that the following contract has been let to Brown & Coates, Rochester, Pa., for brick paving, as advertised in Engineering News: Grading, 7,771 cu. yds., 28 cts. curbing, 10,200 lin. ft., 45 cts.; paving, 17,366 yds., $1.02; crossing stones, 676 ft., 20 cts.; total, $24,765.

BREAKWATER.—**Milwaukee, Wis.**—The following bids were received by Capt. J. G. Warren, U. S. Engr., Custom House, Milwaukee, on May 25 for extending the breakwater, Harbor of Refuge, Milwaukee, as advertised in Engineering News:

Bids Received at Milwaukee, Wis., May 25, 1899, for Extending the Breakwater in Harbor of Refuge.

Quantities.		Lydon & Drews Co., Chicago.	Samuel O. Dixon, Milwaukee.	Edward Gillen, Racine.	Robert B. Rice, Muskegon.
White pine timber, per M.	2,180,000 ft. B.M.	$28.00	$27.00	$25.50	$22,00
Douglas or Oregon fir		50.00	.....	29.25	.....
Long-leaf yellow or Southern pine		30.00	.....	27.50	.....
Norway pine timber		28.00	.....	23.50	21.00
Hemlock timber	705,000 " "	21.00	20.00	17.25	16.00
Pine timber taken up and relaid	272,000 " "	12.00	10.00	6.00	2.50
Pine plank	9,000 " "	21.00	20.00	16.50	17.00
Stone	13,000 cords..	6.50	6.00	5.50	5.15
Wrought iron drift bolts	215,000 lbs.	.03	.025	.0275	.03
" " screw bolts and tie-rods	18,700 "	.04	.04	.03	.03
" " spikes	36,700 "	.04	.04	.0325	.03
Total for 900 lin. ft. cribs and 3,100 ft. superstructure		$172,464	$161,451	$144,338	$132,955

PAVING.—**Philadelphia, Pa.**—The director of public works received bids June 5, 1899, for about $2,000,000 worth of repaving in certain streets. The following were the bidders on granite blocks, the price per square yard ranging from $2.43 to $3.40: D. J. McNichol, H. E. Ruch, D. McMahon & Co., W. H. Quigg, Patrick Durken, Ryan & Kelly, R. P. Bennis, Thos. Cunningham, M. O'Rorke, J. R. Stanley, Owen McKenna and D. & P. McNichol. On vitrified brick the following put in bids from $1.65 to $2.53: Jones & Crance, D. J. McNichol, D. McMahon & Co., Owen McKenna, R. P. Bennis, A. M. Neil, N. B. Quinn and Thos. Cunningham. The asphalt paving, which is about three-fourths of all that is done, was bid upon by W. S. P. Shields, Richardson & Rose, Pennsylvania Asphalt Co., the Alcatraz and Vulcanite paving companies and George McDonald, and the prices range from $2.19 to $2.69 per yard. On slag block paving the prices were from $3.18 to $3.25 a yd., and the bidders were David McMahon, Thos. Cunningham and the Mack Paving Co. The "Public Ledger" states that the prices on asphalt paving are for broken stone base and binder, though bids were also received for concrete base, the prices for which range from 22 to 25 cts. a yard higher than for broken stone base, which is the style of paving specified in the ordinance. The prices average about $2.40 a sq. yd., this price including a guarantee to keep the paving in good order for ten years. Last year the highway bureau awarded a contract for the repaving of Christian St. with asphalt on a concrete base and under a ten years' guarantee, for $1.34 a yard, to the Alcatraz Paving Co. The average price paid by the bureau last year for asphalt paving on a broken stone base, under a five years' guarantee, was $1.21 a yard. This was for new paving. For repaving, under a five years' guarantee, it is calculated that the price should be about 10 cts. a yard less than for new paving, as in repaving the contractor gets the old material, which can be used for making the base.

WATER PIPE.—**St. Louis, Mo.**—The following bids were received May 26, 1899, for furnishing certain materials for the water department: About 41,000 tons c.-i. water pipe—U. S. Cast-Iron Foundry Co., $24.40 a ton; Jas. B. Clow & Co., Chicago, $27; Special castings, 250 tons—Magnetite Foundry Co., $50 a ton; U. S. Cast-Iron Foundry Co., $45 a ton; Jas B. Clow & Co., $59.

ASPHALT PAVING.—**Newark, N. J.**—We are informed that the following bids were received May 25 for asphalt paving in several streets; each street is to consist of 6 ins. of concrete, 1½-in. binder, and 2-in. wearing surface, the price a square yard to include excavation: (1) being the Barber Asphalt Paving Co.; (2) the Atlantic Alcatraz Asphalt Co.; (3) the New Jersey Asphalt Co.; (4) the Ervin-Bambrick Paving Co.; (5) the Columbia Construction Co.: (6) Geo. MacDonald: South 11th St., (1) paving, 10,000 sq. yds., $1.88; new 20-in. curb, 500 lin. ft., 55 cts.; new 16-in. curb, 1,100 ft., 47 cts; old 20-in. curb, 1,700 ft., 20 cts.; old 16-in. curb, 2,400 ft., 18 cts.; new Belgian bridging, 55 cts.; a new basin, complete, $90; two new manholes, complete, $35 each; one stand-pipe, $13; altering seven basins, $5.00 each; (2) $1.99, 52 cts., 48 cts., 20 cts., 20 cts., 55 cts., $1.00, $50, $50, $10, respectively; (3) $1.93, 58 cts., 55 cts., 19 cts., 19 cts., 54 cts., $1.00, $35, $12, $10; (4) $1.99, 59 cts., 56 cts., 22 cts., 20 cts., 65 cts., $1.00, $75, $65; (5) $1.98, 65 cts., 58 cts., 30 cts., 25 cts., 60 cts., $40, $35, no standpipe, $5.00; (6) $1.97, 60 cts., 55 cts, 22 cts., 22 cts., 15 cts., $1.00, $30, $10, $12; Barber company lowest at $20,847; South 9th St., all bids the same as for South 11th St., the quantities being as follows: Paving, 17,700 yds.; new 20-in. curb, 400 ft.; new 16-in. curb, 1,700 ft.; old 20-in. curb, 1,200 ft.; old 16-in. curb, 5,250 ft.; new manholes, 2; Barber company lowest at $35,550; Burnet St.: (1) paving, 4,500 yds., $1.88; axed curb, 2,700 lin. ft., 16 x 4 ins., 62 cts.; new round manhole heads, 4, $10 each; (2) $1.99; 48 cts.; $10, respectively; (3) $1.93; 60 cts.; $9; (4) $2.10; 59 cts.; $9; (5) $2.03; 60 cts.; $8; (6) $1.97; 55 cts.; $8; Barber company lowest at $10,174; Hunterdon St., all bids the same as for South 11th St., with the following exceptions: (1) paving, 17,400 yds., $1.93; replacing 8 new round manholes, $10; (4) $2.19 and $75, respectively; (5) $2.15 and $10; with Barber company lowest at $35,641; the other quantities are as follows: 500 ft. new 20-in. curb; 1,300 ft. new 16-in. curb; 1,500 ft. old 20-in. curb; 3,900 ft. old 16-in. curb; one new basin complete; Coes Place, bids the same as South 11th St., except the Columbia Construction Co. at $2.04 for 1,800 yds. asphalt; Barber company lowest at $3,636; Marshall St., all bids the same as South 11th St., excepting (4) at $2.10 a yd., and (5) at $2.01 a yd.; the quantities are as follows: Asphalt paving, 3,600 yds.; new 16 x 4-in. axed curb, 1,450 ft.; old 16-in. curb, 900 ft.; new Belgian bridging, 200 sq. ft.; one new basin; five new manholes, complete; the Barber company lowest at $8,204; North 13th St., all bids same as for South 11th St., except (5) at $2.05 a yd.; the quantities are as follows: 4,500 yds. asphalt paving; 600 lin. ft. of new 20-in. curb; old 20-in. curb, 1,800 ft.; the Barber company the lowest bidder at $9,150. Ernest Adam, Engr. Bd. Street and Water Comrs.

RIVER WORK.—**Rock Island, Ill.**—Capt. C. McD. Townsend, U. S. Engr., Rock Island, received the following lowest bids May 31, 1899, for various river work, as advertised in Engineering News, these bids also being recommended for acceptance: Levees on the Mississippi River between Flint Creek and Iowa River, Ia., W. O. Johnson & Sons, Cedar Rapids, Ia., sections 27-28, 157,000 cu. yds. of earthwork, 22.5 cts.; Cameron, McManus & Joyce, Keokuk, Ia., section 35, 103,000 yds., 18.5 cts.; dredging Quincy Bay, Ill., H. S. Brown, Quincy, Ill., 15 cts. a cu. yd. for dredging and removing material, appropriation, $15,000; dams and shore protection for the improvement of the Mississippi River, from the mouth of the Ohio River to St. Paul, Minn.: Winona to La Crosse, Albert Kirchner, Fountain City, Wis., rock, $1.00 a cu. yd., brush, 30 cts. a cu. yd.; average per cu. yd., 53 1-3 cts., total, $71,250; Lansing to Casville, Jacob Richtman, Elsberry, Mo., rock, 85 cts., brush, 30 cts., average, 52 cts, total $73,077; Casville to Dubuque, John Pickley, Dubuque, Ia., rock, 90 cts., brush, 20 cts., average, 62

cts., total, $79,167; Dubuque to Le Claire, John Pickley, rock, 94 cts., brush, 25 cts., average, 52 6-10 cts., total, $72,243; Rock Island to New Boston, Fetter & Crosby, La Crosse, Wis., rock, 89 cts., brush, 26 cts., average, 51 1-5 cts., total, $74,219; New Boston to Burlington, Albert Kirchner, rock, $1.00; brush, 27 cts., average, 56 1-5 cts., total, $67,616; Burlington to Montrose, Jacob Richtman, Elsberry, Mo., rock, 85 cts., brush, 30 cts., average, 52 cts., total, $54,808; Keokuk to Quincy, Albert Kirchner, rock, $1.00, brush, 26 cts., average, 63 cts., total $45,238; Quincy to Saverton, Fetter & Crosby, La Crosse, Wis., rock, 96 cts., brush, 26 cts., average, 54 cts., total, $70,370; Hamburg to the Illinois River, Fetter & Crosby, rock, 91 cts., brush, 29 cts., average, 53 4-5 cts., total, $88,290. Bidders stated the number of contracts desired by them as follows: Jacob Richtman, 4; John Pickley, 2; Albert Kirchner, 4; Fetter & Crosby, 3.

WATER PIPE.—Schenectady, N. Y.—We are informed that the following bids were received May 22 for furnishing water pipe to be delivered f. o. b. Schenectady; price per net ton; John McDermott, Pres. Bd. Water Comrs.; W. J. Marlette, Secy.:

Bids Received at Schenectady, N. Y., May 22, 1899, for Furnishing Water Pipe.

Bidder.	Pipe, 4-in., 102 lengths.	6-in., 163 lengths.	12-in., 713 lengths.	16-in., 43 lengths.	Special castings, 10 tons.
C. Millar & Son, 127-129 Genesee St., Utica, N.Y. (accepted)	$20.75	$20.75	$20.75	$20.75	$40.00
M. J. Drummond & Co., 192 Broadway, New York	23.00	23.00	23.00	23.00	45.00
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.	23.50	22.50	21.50	21.50	42.00
Warren Foundry & Machine Co., 160 Broadway, New York	21.90	21.90	21.90	21.90	40.00
McNeal Pipe Foundry Co., Philadelphia, Pa.	23.70	22.70	22.40	22.40	42.50
National Foundry & Pipe Works, Scottdale, Pa.	25.40	25.40	25.40	25.40	50.00

IMPROVING STREET.—West Boyleston, Mass.—The Metropolitan Water Board, Boston, received the following bids May 31 for improving Lancaster St., West Boyleston; the contract for excavating soil, etc., for the north dike of the Wachusett reservoir was let to Cenedella Bros., Milford, Mass., at $81,476, the bids were given in our issue of May 25:

Bids Received at Boston, Mass., May 31, 1899, for Improving Lancaster St., West Boyleston.

Quantities.		T. H. Gill, Somerville.	C. E. Trumbull & Co., Boston.	Busch Bros., Buffalo.	Mignault & McGrain, South Framingham.	Rowe & Hall, Boston.	Newell & Snowl'g, Con.Co., Uxbdge	D. Scanlon, W. Medford.	John J. Falvey, Boston.
Earth excavation	12,000 cu. yds.	$0.29	$0.27	$0.25	$0.28	$0.37	$0.35	$0.40	$0.45
Rock "	1,000 " "	1.00	1.50	1.30	1.65	1.10	1.75	1.75	2.00
Dry paving	35 " "	3.00	6.00	2.35	2.50	2.50	3.00	1.50	3.00
Rubble masonry	30 " "	3.50	6.00	6.00	7.00	7.00	6.00	7.00	6.00
Split stone masonry	25 " "	14.00	9.50	13.00	16.00	10.00	12.00	27.00	12.00
Laying sewer pipe:									
12-in., for culverts	130 lin. ft.	.18	.25	.40	.18	.20	.14	.25	.50
15-in., " "	125 " "	.22	.30	.60	.22	.25	.16	.26	.60
24-in., " "	90 " "	.27	.50	.75	.30	.40	.20	.50	.80
12-in. c.-i. pipe for culverts	40 " "	.32	1.00	.70	.25	.20	.14	.40	.60
20-in. " " "	36 " "	.35	1.00	1.00	.50	.25	.30	.70	1.00
*Overhaul, hauled 100 ft.		.01	.01	.02	.01½	.01	.01	.01	.015
Total		$5,891	$6,300	$6,646	$6,813	$6,948	$7,358	$8,389	$9,382

*Equivalent to 75,000 cu. yds.

PIPE SEWERS.—Newark, N. J.—The Harrison Construction Co., New York, has been awarded the following contract for building the Forest Hill sewer, section 1: 2,360 ft. double strength 24-in. pipe, $2.25; 850 ft. standard strength 24-in. pipe, $1.35; 1,100 ft. double strength 18-in. pipe, 95 cts.; 750 ft. double strength 15-in., $1.25; 650 ft. standard 15-in., 80 cts.; 500 ft. 12-in., 65 cts.; 5,600 ft. 10-in., 80 cts.; 1,900 ft. 8-in., 50 cts.; 400 ft. 6-in., 15 cts.; 55 ordinary manholes, $30 each; 19 special manholes, $50; total, $16,196.

FIRE HYDRANTS AND GATE VALVES.—Schenectady, N. Y.—We are informed that the following bids were received May 31, 1899, for furnishing about 50 fire hydrants and 70 gate valves:

Bids Received at Schenectady, N. Y., May 31, 1899, for Furnishing Fire Hydrants and Gate Valves.

Bidder.	4-in. hydrants.	Gate valves 4-in.	6-in.	8-in.	12-in.	16-in.	Gate boxes.
M. J. Drummond & Co., 192 Broadway, New York	$22.90	$5.75	$9.00	$15.00	$27.00	$54.00	$2.75
J. O. Frost's Sons Mfg. Co., Towanda, Pa.	23.00	7.20	12.60	18.00	34.00	57.00	....
J. Thompson & Co., Van Horne & Sophia Sts., Philadelphia	24.75	7.05	9.95	16.50	32.75	64.50	....
Chapman Valve Mfg. Co., Indian Orchard, Mass.	20.26	6.52	9.42	5.46	30.52	49.49	....
Williamsport Valve & Hydrant Co., Williamsport, Pa.	22.50	6.20	10.25	.....	27.90	48.00	2.90
Michigan Brass & Iron Works, Detroit, Mich.	24.85	6.75	10.50	17.25	38.00	73.00	....
R. D. Wood & Co., 400 Chestnut St., Philadelphia	24.00	7.00	11.00	17.00	30.00	57.00	2.50
The Ludlow Valve Mfg. Co., Troy, N. Y.	24.00	7.25	12.00	.....	32.50	61.00	4.10

ELECTRIC LIGHTING.—Los Angeles, Cal.—The following bids were received by the council May 29, 1899, for lighting the city by electricity; (A) using the present mast system; (B) using poles and overhead wire system; (C) for the construction of a pole and overhead wire system; (D) to furnish not less than 500 nor more than 1,000 lamps of 2,000-c.p. each; (E) to furnish electrical energy; (F) to maintain and keep in repair a system owned by the city; (G) to furnish power, maintain and keep in repair a system owned by the city: The Los Angeles Electric Co., (A) for each electric light of 2,000 c. p., $5 per calendar month; (B) electric arc light of 2,000 c.p., $5.25 per calendar month a light. Edison Electric Co., (A) for each 2,000 c. p. arc lamp, per calendar month, $5.35; (B) for each 2,000 arc lamp, per calendar month, $5.35. The San Gabriel Electric Co., (D) to furnish not less than 500 nor more than 1,000 arc lamps, each of standard rating of not less than 2,000 c. p. to consume not less than 450 watts of electrical energy, said lamps to be delivered before Dec. 1; alternating series long burning inclosed arc lamps, suitable for operation upon 50 cycles, alternating current, $22.15 each f. o. b. cars Los Angeles; direct current series, long burning, inclosed arc lamps, suitable for operation by direct current, 6½ to 7 amperes, $19 each f. o. b. cars Los Angeles; Electrical energy in the shape of 50 cycle alternating current for 1.4 cts. per K-W. hour for five years, and for 1.4 cts. a K-W. hour for ten years. Electrical energy in the shape of direct current for 2 cts a K-W. hr. for 5 years, and for 2 cts. a K-W. hr. for 10 years; specifications (C) $140,000; (E) in the shape of 50 cycles alternating current for $1.45 a K-W. hr.; direct current suitable for the operation of long burning series enclosed arc lamps for 2 cts. a K-W. hr.; (F) 60 cts. a lamp per month; (G) $3.20 per month.

INDUSTRIAL NOTES.

THE BROWN HOISTING & CONVEYING MACHINE CO., of Cleveland, Ohio, has shipped a large crane to La Societe d'Ougree, of Liege, Belgium.

THE BERLIN IRON BRIDGE CO., East Berlin, Conn., has received a contract for a warehouse building 40 ft. wide, 120 ft. long and 20 ft. high, to be erected in Dutch Guiana.

THE RICHMOND LOCOMOTIVE WORKS, Richmond, Va., has shipped 10 engines for the government railway in Sweden, completing the order for 20 locomotives for that country.

THE NEW CASTLE ENGINEERING WORKS, New Castle, Pa., were sold June 7 to G. B. Herenden and Willis S. King, representing Pittsburg interests, according to reports.

THE AMERICAN SHIPBUILDING CO., Chicago, has the contract for four steel ships, each to be 500 ft. long and have a cargo capacity of 8,000 tons; their total cost will be $1,400,000.

THE ROBT. POOLE & SON CO., Baltimore, Md., is reported to have shipped a considerable amount of rolls, gearing and shafting to the Kaltschugin Brass & Copper Co., Moscow, Russia.

TOPPING BROS., New York, have been awarded the contract for about 5,000 7½-lb. railway contractors' picks and handles, and also for a similar number of 18-lb. sledge hammers, for use on the Trans-Siberian R. R.

THE BALDWIN LOCOMOTIVE WORKS, Philadelphia, is said to have shipped to Mombasa, east coast of Africa, five of the 36 engines ordered for the Uganda Railway. These locomotives are being built on American lines.

MR. HENRY M. BEAN, Camden, Me., has been awarded the contract for building a 6-masted schooner. It will be 345 ft. long, and have a tonnage of 2,700 tons, and a capacity for 5,000 tons of coal. The cost will be $100,000.

MR. L. WILSON, Chicago, has secured a contract for an 8-in. well, to be 1,500 ft. deep, for the Sterling Water Co., Sterling, Ill. Mr. Wilson has removed his office from 53 Dearborn St. to Room 211, No. 225 Dearborn St.

THE BUCKEYE ENGINE CO., Salem, O., is said to have shipped a 329-HP. tandem compound engine, and one of 415 HP. to Vancouver, B. C. The New York office of this company is now in charge of G. D. Sturtevant, late of Chicago.

THE HICKS GAS ENGINE CO. has removed its business from Detroit, Mich., to Buffalo, N. Y. In Detroit the company did not have ample facilities for the manufacture of its gas and gasolene engines, and on this account many orders had to be rejected.

THE FISHER EQUIPMENT CO., Philadelphia, Pa., is reported to have been awarded the contract by Gen. A. W. Greely, Ch. Signal Corps, U. S. A., Washington, D. C., for three motor telegraph and balloon wagons, to cost about $1,800 each, with an addition of $1,500 for extra batteries.

THE WHEELER & BOODY CO., contractor, 222 South Third St., Philadelphia, has been dissolved by mutual consent. The business interests of F. G. Wheeler and W. S. Boody have been acquired by the Consolidated Public Works Co., which for the present will conduct its affairs at the offices formerly occupied by the Wheeler & Boody Co.

THE CAYUTA WHEEL & FOUNDRY CO., of Sayre, Pa., has recently purchased the valve and hydrant business of the J. O. Frost's Son's Mfg. Co., of Towanda, Pa. Mr. C. E. Loetzer, formerly superintendent of the J. O. Frost's Son's Mfg. Co., has been retained as assistant superintendent of the valve and hydrant department of the Cayuta Wheel & Foundry Co.

GEORGE M. PIERCE, 315 American Trust Bldg., Cleveland, O., manufacturer of the Duplex street drainage goods, has opened a branch office at 105 North 8th St., St. Louis, Mo., in charge of Mr. L. B. Emmons, Manager. Mr. Pierce last week shipped a carload of Duplex catchbasin covers to the city of Hartford, Conn., and two carloads, consisting of 134, to Ann Arbor, Mich.

MR. L. E. BENNETT announces that he is about to begin business in Bangkok, Siam, under the firm name of the Siam-American Trading Co., of Bangkok. Capital stock, $100,000. The company proposes to handle American manufactured goods, especially railway materials, as the government will do considerable railway building, as well as constructing water-works and irrigating systems. Mr. Bennett's address while in New York will be the Marlborough Hotel.

THE WE FU GO CO., of Cincinnati, O., informs us that it has put in new water-softening plants as follows: Beckett Paper, Hamilton, O., 33,000 gallons capacity; Galesburg Artificial Ice Co. (Westinghouse, Church, Kerr & Co. plant), Galesburg, Ill., 28,800; Temple Cold Storage & Ice Factory, Temple, Tex., 19,200 gallons; Peerless Laundry, Carthage, Mo., 7,200 gallons. The company has also enlarged plants previously installed as follows: Brenham Congress Oil & Mfg Co., Brenham, Tex., to 72,000 gallons; Weir Frog Co., Cincinnati, O., to 48,000 gallons; McDougall Steam Laundry, Denison, Tex., 14,400 gallons. About 25 of these water-softening plants are now in service or under construction.

COMMONWEALTH OF MASSACHUSETTS.

HARBOR AND LAND COMMISSIONERS' OFFICE, ROOM 131, STATE HOUSE, BOSTON, June 5, 1899.

Sealed bids or proposals, endorsed "Proposals for Channel at Cottage City," will be received by the Board of Harbor and Land Commissioners, Room 131, State House, Boston, Mass., until 12 o'clock noon, of THURSDAY, JUNE 22, 1899, and then and there will be publicly opened and read.

All proposals must be made upon blank forms, which may be obtained at the office of said Board, where plans and specifications of the work may be seen.

Each bidder will be required to give to the Board satisfactory assurances of his competency, experience and responsibility.

Each bid is to be accompanied by a certified check for one thousand ($1,000) dollars, payable to the Commonwealth of Massachusetts, such check to be returned to the bidder unless forfeited under the condition herein stipulated. This check should not be enclosed in the sealed envelope containing the bid, but should be delivered to the Secretary of the Board, from whom a proper voucher will be received.

A bond will be required for the faithful performance of the contract, in the sum of five thousand ($5,000) dollars, with sureties satisfactory to the Board.

The person to whom the contract shall be awarded will be required to offer his surety and to execute the contract and furnish the bond within ten (10) days (not including Sundays) from the date of notice that the contract is ready for signature, and in case of failure or neglect so to do, will be deemed to have abandoned it, and the check accompanying the proposal shall be forfeited to the Commonwealth.

Proposals will be received either for the whole work or for either item alone.

The right is reserved to reject any and all bids, and to waive any defect or informality, at the discretion of the Board.

WOODWARD EMERY,
CLINTON WHITE,
CHARLES C. DOTEN,
24-1t Harbor and Land Commissioners.

NEW YORK STATE CANALS.

NOTICE TO CONTRACTORS.

Sealed proposals will be received by the Superintendent of Public Works at his office in Albany, New York, until 12 o'clock noon, Thursday, 29th June, at which place and hour they will be publicly opened and read:

For building and completing by October 1st, 1899, a wall along the northeastern boundary of Washington's Headquarters at Newburgh, pursuant to Chap. 606, Laws of 1898, and

For improving the channel of Newtown Creek, in the town of Horseheads, Chemung county, N. Y., pursuant to Chap. 607, Laws of 1898, work to be completed by November 1, 1899.

Plans may be seen and general instructions for bidders, blank forms for proposals, specifications and contract forms may be obtained at the office of the Superintendent of Public Works, Albany; at the office of Thomas Wheeler, Assistant Superintendent of Public Works, Syracuse; and at the office of Houston Barnard, Assistant Superintendent of Public Works, Rochester, New York.

Monthly estimates will be paid of eighty-five per cent. of the amount of work done or materials furnished at the contract price. Every proposal for said work must be accompanied by a draft or certified check upon some good banking institution in the City of New York or Albany, issued by a National or State Bank in good credit within the state, and payable at sight to the Superintendent of Public Works, for ten per cent. of the amount of the proposal, which draft or check will be retained as part of the security until the completion of the work. The amount of bond for faithful performance of the contract will be forty per cent. and the amount of labor bond required on execution of contract will be thirty-five per cent. of the proposal. Each proposal must be addressed to the Superintendent of Public Works, at Albany, N. Y., and must be endorsed on the envelope with the name of the construction for which the proposal is made. The right is reserved to reject any or all bids.

JOHN N. PARTRIDGE,
24-2t Superintendent of Public Works

SEWERS.

CITY OF MARSHALL, MICH.

Sealed proposals will be received by the City Council of the City of Marshall, Michigan, until 2 o'clock p. m., of Friday, June 30, 1899, for furnishing materials and constructing main and lateral sewers in said city.

The work will consist approximately of the following pipe sewer, with appurtenances: 30-in., 1,266 ft.; 27-in., 803 ft.; 24-in., 765 ft.; 15-in., 5,642 ft.; 18-in., 2,658 ft.; 12-in., 3,052 ft.; 10-in., 415 ft.; 8-in., 1,600 ft.

All bids must be made upon printed forms to be obtained from the Recorder, on and after June 19, 1899.

Bids will be made for labor, material, and labor and material combined; the Council reserves the right to reject any or all bids.

Complete plans may be seen at the office of Riggs & Sherman, consulting engineers, 613 The Nasby, Toledo, Ohio, or at the Council Rooms in the City of Marshall, Michigan.

NORMAN G. BROWN,
P. A. COURTRIGHT, Recorder.
City Engineer. 24-2t

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